DIGARTS: A CASE STUDY OF DIGITAL VISUAL CULTURE, TEENAGERS, AND TENSIONS IN THE THIRD SPACE

BY

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DISSERTATION

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ABSTRACT

The concept of the third space has long been an area of interest for educational researchers, particularly those within Art Education. In prior literature, the informal art learning experiences of youth are demonstrated to have close ties to elements of popular culture, and often enter subversive, transgressive, and inane territory. In the 21st century, teenagers are spending more and more time online, engaging in the same informal types of play, socialization, learning and art-making as occur IRL (in real life).

Because of these issues, some have responded by creating a hybrid "third space" (Staikidis, 2006; Wilson, 2008a; Wilson, 2008b) between formal and informal learning spaces to investigate concepts that do not fit into the rigid structures of the classroom. The third space integrates concepts like playful pedagogy into learning, although the third space is rooted in a discourse of dissent and conflict. Some have also drawn connections between the third space and visual culture produced and consumed by teenagers on the Internet. In the academic world, a few years is not a long time to see findings published in a paper or book. However, the online world changes much more quickly than that, and as a result, teenagers are always occupying new digital realms we are unaware of as researchers.

Therefore, this study investigated the nature of online visual culture today and employed a qualitative case study of the tensions that arose in one specific third pedagogical space for tech-savvy teenagers. The DigArts workshop was designed with the third space in mind, to facilitate connections and learning amongst area teenagers. This study finds evidence of the digital visual culture of today's teenagers, identifies the tensions that arise in the third space, and compares the organic and unpredictable learning in the third space to a rhizomatic structure.

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Dad, who taught me that anything can be accomplished with hard work and two hands.

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1.1: Introduction

I have a confession to make: I once broke the law in the name of art. The year was 1998, and to be honest I don't feel particularly bad about it. Compared to most other adolescent acts of rebellion, I suppose my offense was pretty light in nature, and in fact it has proven to be a seminal moment in my development as an artist, educator, and researcher. For my 14-year-old self, salvation from teenage angst and boredom came at the hands of a pirated copy of Adobe Photoshop, downloaded on a 14.4k modem.

Growing up on a farm can be a fairly isolating experience, even with two brothers. Living 15 miles from the nearest town and having only a bicycle for transportation cut down on the options for socialization. Thankfully, we were one of the first families I knew of to have Internet access at home, which provided a much- needed lifeline to the outside world located just through the cornfields. The computer, as a result, became a hotly contested war-zone between my brothers and myself during after-school hours. However, art was always my most consuming interest, and I sought out every opportunity I could to learn more, especially online. In my youth I had attended a Saturday Art School program at the nearby University of Illinois in Urbana-Champaign. In art class at high school, I was eager to learn new skills, art history, and criticism, and I filled my sketchbook with copies from photographs of my favorite movies and dead rock stars. However, I rarely felt fully challenged by the work I was given in school, and our library computer lab's machines functioned best as super heavy, electricity sucking typewriters. In terms of art production, these machines were simply not capable, did not have adequate software, and were rarely available for free use during school hours. As a result, I began looking for other ways to supplement my love for art-making.

I was intrigued by some digital graphics I had seen online, and after some searching found a download link for an outdated version of Adobe Photoshop along with a registration cracker. After a few hours of watching the progress bar tick by percent by percent, the download completed and I started it up, registering it under a pseudonym stolen from a TV sitcom. From here, it was as if Pandora's box had been opened. I immediately began to immerse myself in tutorials and messed around with the various tools of the program, eventually seeking out other forms of software that could help me in my quest for online media creation.

Around the same time, I formed a garage band with a group of friends, which served as an informal, peer-centered learning group. We all started from scratch, teaching ourselves the instruments, covering songs with online tablature, writing our own material, and organizing mini music festivals with other bands in basements and garages. By high school, I had taught myself basic web design in order to start a band website to host our recordings from the garage (also recorded on pirated software). I turned to my trusty stolen copy of Adobe Photoshop, designing graphics for the website and posters to promote the small shows we would play. As a band, we learned to screen print t-shirts and stickers, and we eventually designed and self-produced the album art and packaging for our debut CD *Like a Minivan out of Hell*. With this album, we made contact with a local radio station and gained airplay during a contest between local high school bands. With the use of online and offline social networking, we won the first round of this vote-driven contest and earned even more shows (and inspired a "flame war"[1] by the defeated band's fans on our guestbook). In my case these experiences were much more than a pastime, and offered a new appreciation of how the Internet opened a new world of learning. I had achieved

[1] Internet lingo for a heated argument between two individuals or groups, often straying from the actual point of debate or resulting in personal attacks.

these things on my own, without much adult intervention. For me, it encouraged an appreciation for self-guided discovery in the arts that I continue to embrace today.

I later came to understand my experiences with the pedagogical power of computing as something experienced by other youth even well before the Internet was commonplace. In *The Hacker Manifesto* (Phrack, 1986), a teenage hacker under the pseudonym "The Mentor" writes after his arrest about his thoughts on the public education system as an adolescent:

> Mine is a world that begins with school… I'm smarter than most of the other kids, this crap they teach us bores me… Damn underachiever. They're all alike. I'm in junior high or high school. I've listened to teachers explain for the fifteenth time how to reduce a fraction. I understand it. "No, Ms. Smith, I didn't show my work. I did it in my head..." Damn kid. Probably copied it. They're all alike. I made a discovery today. I found a computer. Wait a second, this is cool. It does what I want it to. If it makes a mistake, it's because I screwed it up. Not because it doesn't like me... Or feels threatened by me... Or thinks I'm a smart ass... Or doesn't like teaching and shouldn't be here... Damn kid. All he does is play games. They're all alike. (Phrack, 1986)

This indictment of our school system was written by a bright-but-bored youth who found solace in the world of computer programming and hacking, and through self education he became adept enough to gain an enormous amount of power in the digital world, even though his actions were directed toward the digital equivalent of vandalism. Concepts such as the online community and Do-it-Yourself (DiY) culture presented a way for this youth to learn when public schooling had failed him. This seems especially relevant today as the online world continues to expand and offer more opportunities for education to take place outside of conventional school buildings and bell systems.

As an adolescent, I became motivated to use online technology to supplement what was impossible for me to learn in the constraints of my public school's facilities, resources, and curriculum. I was fortunate enough to have been provided the context and resources at home to allow these types of opportunities to take place. In retrospect, my experience in the garage band was not simply an idle pastime or simply a chance to make noise with friends (although this was definitely a part of it). Instead, it became a conduit for the much richer experience of learning about and participating in new forms of creative production and forging an identity through subversive, reactive negotiation with new and popular media – in music, the visual arts, and online. These out-of-school, interest-driven pursuits have led me to an understanding about online culture, digital art-making, and social networking. In short, I was behaving as a prosumer[2] – not only consuming the cultural material of my world, but also responding to it and using it to produce creative ends and to solve problems on my own accord.

Years later, I have found a new passion as an art educator. I understand my own education in the arts as one that was facilitated both by my teachers and driven by my own initiatives. As a result, I view my early days online as a valuable frame of reference for how informal, online learning can fit within educational and artistic practice. Nearly two decades later, I feel compelled as an educator to investigate what the youth of today are capable of doing with the vastly increased capabilities of computers at home, in schools, and in their pockets, how

[2] *Prosumer* is a term that originates in Toffler's *The Third Wave* (1980), and is used to describe the contemporary erosion of boundaries between producers and consumers as a powerful force in shaping future economies and culture. Toffler points to examples of direct telephone calls and automatic teller machines as ways in which consumers have cut out reliance on telephone operators and bank cashiers and shifted certain types of work to the consumer. Jenkins (2006) expounds on this idea in *Convergence Culture*, applying it to the era of online technology, and the ways in which new media is often seen as participatory and prosumer-driven in terms of gathering and synthesizing information. This subject will be discussed in more detail in Chapter 2.

they may be at odds with what is being taught in art classrooms, and ultimately how art educators can prepare to deal with new issues surrounding their students' online visual culture experiences.

1.2: Purpose of the Study

The purpose of this study is to provide a contemporary understanding of teenagers' relationship with online visual culture and art-making, particularly within the environment of a third space digital arts workshop. At the core of this study is the topic of informal learning, both in terms of individual behaviors as well as those of larger communities of learners. Within the field of informal learning, I focus particularly on those experiences facilitated by new and social media. My research traces these trends to Deweyan philosophies of learning that are tied to experience and tacit knowledge, the characteristic differences and implications of diverse types of learning (pedagogy vs. andragogy), the autodidactic processes of learners who initiate "learning projects", the field of Visual Culture Art Education, and applications and implications of this type of learning tied to the use of new social media and online networks.

1.3: Keywords

Because this study investigates the third space relationship between students' self-initiated art learning and in-school experiences, the terms *formal learning, informal learning,* and *non-formal learning* must be distinguished from each other. *Formal learning* is organized and structured, with clear learning objectives (Coffield, 2000, p. 2). Formal learning takes place in, but is not limited to, traditional educational structures like the school and workplace. *Non-formal* learning also often takes place within structured environments, but has some degree of informality or freedom from traditional pedagogical structures (Coffield, 2000, p. 55). Examples of non-formal learning environments would be an after school tutor, Boy/Girl Scout organizations, or a Saturday Art School program. Conversely, *informal* learning is used often as

a blanket term for learning that is spontaneous, unstructured, non-pedagogically conscious, as well as learning by experience (OECD, p. 1; Coffield, 2000, p. 1). This study, in part, examines how students' use of new media and online technology differ and connect between these three areas of their art learning, but it pays special attention to de-formalized spaces of creation and collaboration.

This focus on de-formalized educational experiences led me to existing research concerning the concept of the *third space*, particularly as it is used in the field of education. This term is derived from sociolinguistic origins, where it is often used to describe spaces of dissent against uneven forces of cultural representation. The third space in the sociocultural sense might be taken to mean either a place where the oppressed plot their liberation, or also where the oppressed and oppressor are able to meet (Bhabha, 1994). Educational applications of this concept hinge on the understanding that learning is often situated in two greatly different spaces: the formal, structured environments of schools and the spontaneous, unstructured experiences that happen at home or in other informal situations. As a result, focused efforts have been made to create a third pedagogical space between these areas where learning is still encouraged, but conventional hierarchies of teacher/student are subverted and fewer subjects are off-limits (Wilson, 2003; Wilson, 2008a; Wilson, 2008b). These endeavors will be discussed in more detail in Chapter 2.

Also central to this study is the idea of *visual culture,* a term used here to refer to the study of visual events in which information, pleasure, or meaning is communicated between a user and a visual interface (Mirzoeff, 1998, p. 3). This visual interface might refer to traditional forms of art and image-making, but also could include images found in advertising, television or film, and the Internet – in essence, the whole of mediated visual experience. This use of this term

is not to be confused with the discipline of Visual culture, which Elkins (2003) argues arose out of Cultural Studies programs, appearing as a separate discipline in the 1990s and spread across the Western university system in recent decades (p. 2). These ideas have also been adopted into Art Education discourse, as some have argued for a model of Visual Culture Art Education, which calls for a broader and more inclusive catalogue of images and artifacts, a focus on how and under what conditions we look at and interact with these artifacts, and acknowledging the social context of images (Duncum, 2002, p. 17; Sturken & Cartwright, 2001; Freedman, 2003; Garoian & Gaudelius, 2004).

Mitchell (2002) dissects the term visual culture, arguing that vision is something that is learned and cultivated socially, not simply provided through nature, and that the study of visual culture has broad implications for the arts, technology, media, and the "ethics and politics, aesthetics, and epistemology of seeing and being seen" (p. 166). At the end of the 20th century, many scholars began to describe a "visual turn" in the nature of society (Mitchell, 1994; Mirzoeff, 1999;), although Mitchell (2002) recognizes this is likely a fallacy, arguing that visuality has also been an important part of eras past (pp. 172-172). Debord (1967/1994) characterized his context as one that was fixated on the spectacle, which he argues is "the acme of ideology, for in its full flower it exposes and manifests the essence of all ideological systems" (p. 151). Barnard (1998) supports this idea, stating that sight is as vital and important a system of communication and cultural expression as written or verbal language (p. 3). For others, contemporary society would be better characterized as one of surveillance (Foucault, 1975/1977). These issues maintain their relevancy into the 21st century and inform my understanding of the visual culture encountered by the participants in my study.

This study pays particular attention to teenagers' use of *new media* in various spaces of learning, although this is a term that often carries divergent meanings. Because this study intends

to understand current trends in online culture, I refer to Manovich's (2001) description of new media and adhered to his criteria. According to Manovich, new media is tied to numerical representation. In simple terms, this means it is digital, or that all analog media sources have been converted into digital, numeric code. For the layperson, this typically means media that is created on a computer or other electronic devices (p. 49). Manovich also argues that new media is defined by its modularity, or its ability to be constructed through the embedding of various other forms of media. This quality is fractal-like in nature, as a new media object is made up of smaller "modules", which are also made up of smaller components. In Manovich's description, this modularity extends to the smallest "atoms" of new media, such as pixels, characters, and 3-D points. A simple demonstration of this could be found in typical HTML-based webpages, which make use of not just text, but also images, movie files, and other "modules" to add to their overall functionality. In addition, new media has some degree of automation, variability, and the ability to be transcoded (p. 50-63). Automation refers to the use of computer-coded instructions to carry out certain processes for the new media creator, such as a Photoshop filter used to reduce noise. Variability refers to the way that new media objects do not remain fixed, but can be altered, mutated, and exist in virtually infinite forms (p. 56). Transcoding refers to a new media object's ability to not only be translated into a new format within the computer, but to span across "cultural layers" of affect and meaning inferred by the user and "computer layers" of pure data and information (p. 63).

1.4: Questions

While the self-initiated visual culture production activities of teenagers have been studied extensively, I wish to understand more about the impact that third-space pedagogy might have on teenagers who were learning about digital arts and new media. Through my interactions with

teenagers in the third space of the Digital Arts Workshop, I investigate the various forms of online visual culture that these teenagers engaged with on their own, and I also reflect on my own efforts to create a third space. To guide my research, I pose the following questions:

Central question.

1. What tensions exist in a third pedagogical space that is focused on online visual culture?

Issue questions.

1. What are teenagers learning through their production and consumption of online visual culture?
2. How are hybrid forms of learning in the third space shaped by students' formal and informal learning experiences?
3. What understandings from the third space challenge existing models for understanding formal and informal art learning?

1.5: Significance of Study

The desire of educators to understand the spontaneous, self-directed artistic habits of children has a long history, particularly within the field of Art Education (Wilson & Wilson, 1977; Wilson & Wilson, 1982; Duncum, 1986). Wilson and Wilson (1977) studied the drawings of young people in an effort to shed light on the popular and "art iconoclastic" influences that were evident in self-initiated work (p. 412). Often, traces of young peoples' popular culture, particularly that which is transgressive, inane, or controversial, appear in this type of work. For example, Duncum (1989) examined the unsolicited drawings of children, and discussed how social contradictions are evident in these children's simultaneous acceptance and condemnation of violence. In today's rapidly changing world of online media creation, the products of informal

learning can often be found on blogs, on YouTube, or on Facebook, among other places. However, new types of socially-driven websites, smartphone applications, and other technology are being issued every day, and as a result, the ways youth engage with technology is changing. My study is built on existing research to provide a fine-grained contemporary picture of what exactly today's teenagers are doing online (whether it is consuming or producing visual culture), and to provide an account of the tensions experienced in my own effort to create a third pedagogical space for teenagers interested in learning about digital art-making. In part, I hope to contribute to a greater understanding of how today's youth are pursuing their own goals for learning and production outside of school and in ways that challenge or subvert conventional models for learning. Additionally, I hope to provide some basic implications that my research might offer for art educators dealing with online technology and visual culture in the years to come.

1.6: Proposed Methodology

In order to investigate these issues, I facilitated a 9-week program, the Digital Arts Workshop (or DigArts), which was offered free of charge to any teenager within the University region. My study centers on this workshop's conception as a third pedagogical space, which served as the foundation for an in depth and comprehensive qualitative case study. Because the study also intends to examine the creative habits and behaviors of specific teenagers, I used the setting of the workshop to interview its' participants on this subject as mini-cases within the larger case of DigArts. These interactions investigated the creative and educational habits of the teenagers who attended DigArts as individuals within the group. The purpose of this approach was not to create generalizations about all teenagers and their experiences with online technology and popular visual culture. On the contrary, the strength of qualitative research in this

case was in understanding what was unique about this group of teenagers in particular (Stake, 2006, p. 8). In this study, my goal is to understand the learning processes of my subjects, and also to recognize my own personal biases and assumptions. By investigating the DigArts workshop on both macro and micro scales, a clearer picture developed of the issues at hand.

Although this study began and took place mostly within the third space of DigArts, it was also necessary to gather other forms of data concerning participants' relationship to online visual culture in other settings, including formalized ones such as the school. The purpose of this tactic was to understand more fully how these students connected their informal learning experiences with what they were learning in schools (particularly in terms of online visual culture or digital art making). Although the task of observation is not always possible in all situations (at home, or in other private settings), some limited understandings about participants' experiences outside of DigArts were made possible through informal discussions, interviews, and sharing of creative work, as well as contact with parents and teachers. With these measures and the methodology articulated in Chapter 3, it became possible to observe and analyze these participants and develop a clearer picture of my central issues.

1.7: Limitations of Study

In order to bring this study into focus, it is important to define a few limitations. The fields of informal learning and online visual culture are ripe with possible areas of inquiry, although this study is primarily concerned with where these areas (informal and formal, online and offline, digital and analog) of teens' lives overlap. I do not intend to address the disparities in privilege or access to online technologies that surely exist among youth worldwide. Instead, it is my goal to provide a picture of what specific students with these resources had been doing with them in order to guide their own learning about art or engagement with visual culture. In

addition, this study is not primarily concerned with investigating the role that other opportunities like after school programs and community arts centers played in fostering art learning among these participants (even though some participants in this study may have also participated in programs like these). Rather, this study investigates the implications of a specific program, the DigArts workshop, and the actions of its' weekly participants. In addition, it is not my goal to prescribe homogenized recommendations for Art Education as a whole, but is instead to offer a clear picture about the experiences of these teenagers in particular, whose stories may be considered by other art educators who work with tech-savvy teenagers.

This study was also shaped by the participant selection process. Enrollees in DigArts were all high school aged students, and although many students used online technology at home in ways that are both social and productive, not all had access to advanced (or even basic) computer resources outside of the workshop. Special attention was paid to how these differences in access informed each specific participant's experience in the workshop. Similarly, my study is limited to examining modes of creative production that were primarily visual in nature. The study also carries restrictions that are based upon the timeline of the workshop. My observations and interactions with these students took place over a relatively brief amount of time, for two hours every Saturday afternoon for a 9-week period. While an extended period of time might have allowed a more detailed picture of each student's personal development or their pursuit of larger goals, this study intends to focus on situating these students' endeavors at a specific point in time and place.

1.8: Conclusion

The research questions and goals for this study emerged from personal experiences learning online and my encounters with students in and out of classrooms using new media to

learn about art. Through the research questions I have presented here, I have identified a need for a clearer understanding of what tensions exist within the third space, particularly in that of the DigArts workshop. I also hope to have delineated a need for further research on how third space environment like DigArts fosters unique opportunities for learning through various kinds of digital art-making. I do not intend to blanket all students with assumptions about their proficiency with and access to the technology and opportunites I have described here. In truth, there still exist major gaps in accessibility to these types of technology and learning across ethnic and socio-economic divides, and other students may not be naturally inclined or accustomed to this style of learning. However, it had become evident that important opportunities for learning among DigArts participants were taking place outside of conventional classrooms, and instead through self-directed practices. I feel that the cross-section of students discussed here represents a group with a specific set of needs that should be addressed and who have demonstrated valuable lessons to impart to Art Education.

Chapter 2: Hey Teacher, Leave Us Kids Alone! A Literature Review

2.1: Introduction

The following literature review is structured around my previously stated research questions, investigating what has previously been studied within the subjects of tensions in the third space, differences between formal and informal learning environments, and youth participation with online visual culture. Through this review, I demonstrate that major tensions exist between students' online worlds and their in-school experiences, and that attempts to colonize this space have had mixed outcomes. Additionally, I make clear that while much research exists on the online behaviors of youth in the past decade, their online world is constantly changing and much remains to be understood regarding teenagers' current engagement with online visual culture. In addition, the literature of third space pedagogy in art education will also be addressed to identify gaps in current understandings. These gaps in academic research have helped to identify the boundaries of this study.

Informal learning has been a popular topic for investigation by educators since at least the beginning of the 20th century. In their quest to understand how approaches to in-school pedagogy are often at odds with how students construct knowledge in daily experience, many researchers have constructed a foundation for further investigation of seemingly mundane, everyday learning moments (Coffield, 2000; Dewey, 1929; Dewey, 1938; Knowles, 1980; Livingstone, 1999). Informal learning experiences have also been explored concurrently by many art educators with the goal of understanding what can be learned from students' spontaneous, self-directed art-making and learning behaviors, and how they differ from what is taught in art classrooms (Duncum, 1985; Gude, 2007; Haanstra, 2010; Hicks, 2004; Wilson, 2003; Wilson, 2008a; Wilson, 2008b).

In recent years, a body of research has also emerged centered on understanding current developments in online technology and media as a "convergence culture", and how conceptions of both formal and informal types of learning and literacy might be reconfigured for the 21st century (Choi & Piro, 2009; Ito, 2009; Jenkins, Clinton, Purushotma, Robinson, & Wiegel, 2009; Jenkins, 2006a; Jenkins, 2006b; Stafford, 1998;). Naturally, the issue of Internet technology has become a topic of debate for art educators as well. For some, the promise of technology in extending learning in and outside of the art classroom provides new possibilities for teachers and learners (Blandy, 2009; Burton, 2010; Carpenter & Cifuentes, 2011; Castro, 2009; Darts, 2010; Delacruz, 2009; Overby, 2009). Others advise more caution when dealing with online media and learning (Buffington, 2007; Duncum, 2009). The debate around students' online visual culture remains a hot topic as technology and new forms of cultural production rapidly emerge. With this ever-changing landscape of online visual culture come new and uncharted territories for Art Education.

2.2: Third space pedagogy.

In the past few decades, the concept of the third space has become an issue of investigation for art educators who hope to adopt a more student-centered and informal approach to pedagogy. This is a subject that emerged from post-colonial theories of the third space as a discourse of dissent between opposing systems of power (Bhabha, 1994). Wilson (2008b) argues that one of the major strengths of art education lies in its ability to shape peoples' lives, and to extend students' understandings of visual culture into real life situations, and thus an appropriate place to begin understanding the effectiveness of art education is outside of school (p. 119). Wilson (2003) theorizes a way for educators to connect students' formal and informal learning and to facilitate an open and unthreatening dialogue about student's work and visual experiences

outside of school. Wilson postulates that there are three spaces in which children's art education can take place. These three spaces include the formal school space, the self-initiated and directed space, and the third space: a common, de-formalized space constructed between student and teacher (p. 114). Wilson informs this concept of the "third space" with an example from post-colonial theory that suggests between powerful and less powerful communities exist "liminal" spaces that are "fluid and vague realms of conflict, interaction, and mutual assimilation" (Bhabha, 1994). It is in this liminal space, Wilson claims that new hybrid cultural productions emerge, and therefore is a suitable model for considering new approaches to visual arts learning. Translated into art educational terms, the third space of arts learning would exist between the self-directed, autonomous art activities of children, and the institutionalized and formal educational techniques of traditional schooling. Here, on the "margins of schooling", Wilson describes a site that is inclusive rather than exclusive, and embraces ambiguity, abnormality, and opposes structure (p. 120). Wilson (2008b) argues that the third pedagogical space is characterized by a blend of structure and anti-structure, and it also involves the acquisition of cultural capital by the learners (pp. 125-126). Wilson also argues that one of the major benefits of entering this third site is the ability to strip learning of its usual roles, and allow adults and kids to meet more like colleagues pursuing a common goal (p. 128).

Wilson (2008a) explains that despite the anti-structured nature of third-space interactions between adults and children, the third-space is typically nested within structured situations of the school or community (p. 6). Wilson connects this understanding of the third space to personal experience and his own school-based art education. His encounter began with the discovery of a modern art book as a teenager, and was supported by his art teacher at school. By providing a space and support for self-initiated interests, Wilson's teacher allowed a third space to be crafted

in the storeroom, allowing the high-schooler to paint and pursue his own interests somewhere in between his school and home lives (pp. 6-8). Wilson concludes that a supportive art educator seeks out opportunities for third space encounters with students, and that the ultimate goal of such an approach is to help provide students the space to create their own unique visual cultures (p. 9). An educator might facilitate this kind of space by asking a student to draw with them in their journal, or any other way in which usual roles are relinquished, sources are shared, and participants (adult and child) become "co-equal joint-producers of contemporary visual culture" (p. 9). By this definition, third-space pedagogy might take shape as an informal drawing collaboration at recess, or through discussing and analyzing children's self-initiated comics along with them (Wilson, 2003, p. 128). In this light, the art room during recess, after school, and on lunch periods might also serve as a meeting place to create a dialogue between disparate ideas of popular imagery and the "fine" arts, as well as to subvert notions of teacher and student.

Wilson (2003) explains that this type of third-space dialogue between teacher and students' can call attention to the diversity of meanings and interpretations that are produced through experience with visual culture sites. Meaning emerges in the third space through discussion, but also through the creation of new visual texts by students and teachers. These texts respond to the materials brought into the third space by teachers and students, reinvented and extended beyond their original meanings (p. 119). In turn, Wilson argues that the place of the art teacher in the third space is radically transformed and that the goal should not be attempting to teach self-initiated art (or something like it) in schools. By doing so, a teacher risks occupying disorderly and sometimes subversive territory, and runs the risk of destroying the students' interest in their popular subject. According to Wilson, teachers often do this in their classroom instruction by placing importance in skill development over children's desire to explore character

development, create stories, and to revel in “delightful disorder” (p. 120). These behaviors are covert pursuits of knowledge, disguised in the form of stimulating entertainment. Wilson advocates against teachers attempting to “tame what should not be tamed”, but rather recommends that teachers be able to conceive of the “third space” connecting these two disparate areas as a common and safe ground for images, references, and ideas to co-mingle and meet (pp. 120-121).

Staikidis (2006) provides an example of what Wilson’s third space pedagogy might look like in practice. While eating lunch, students would flock to Higgins’ room to draw. During this time, Higgins would encourage the lunch-time artists by providing resources like comic books or listening when students spoke about what they were creating (p. 21). Bringing their own interests in subjects like manga into the art room during recess meant bringing a bit of their own culture to the table when learning, and to claim a stake in their own art learning. As a third pedagogical space, the site allowed for a transaction of child and adult values about learning and art. Although students were able to make distinctions between Higgins’ structured lessons during class time and the unstructured drawings done at lunch, they also were able to take knowledge from art class and import it into their daily lives, helping them navigate the world of comics more fully (pp. 20-23). The authors argue that these understandings translated to the students creating superheroes in their spontaneous work that ran counter to negative stereotypes and fostered a sense of social justice (p. 23).

Another place in which third space pedagogy might be possible is in community-based art programs that exist outside of schools. By providing an alternate place for people to engage with art besides the school, these types of resources are often able to operate with less rules and more opportunity for open-ended art making and learning to take place. Initiatives such as these

have existed perhaps as long as Art Education has itself, and evidence of communities rallying together in support of creating art environments outside of schools can be found early in the discipline's literature (Cantor, 1953; Raichle, 1963). Ulbricht (2005) explains that community-based art education, however, can take a number of forms. Although it is common to think of things like after-school programs when discussing community-based art education, Ulbricht argues that art learning in the community can also arise from informal teachers (such as mentors, parents, or others), outreach programs designed to give access to specific populations, and public art (pp. 7-10). Ulbricht argues that with today's technology and visual media, citizens are learning about countless issues through the imagery they encounter, and thus, visual culture itself might be thought of as a type of community-based art education (p. 7). More commonplace community-based arts programs are often seen in museum or craft schools, and in programs held in places like park facilities, arts centers, retirement homes, and correctional facilities, geared toward specific populations of citizens (p. 8).

In the case of the Spiral Workshop, a Saturday youth artist program held at the University of Chicago, students in the city are given the opportunity to explore with new forms of media, engage in discussions about art issues and concepts, and experience art learning in a unique and somewhat de-formalized way. Although the instructors of the course are pre-service art educators who devise a curriculum beforehand, space and time is allotted in the Spiral Workshop for the youth students to improvise and engage in open-ended art-making (Gude, 2007, p. 7). Gude (2010) explains that the first day of the Spiral Workshop is Surrealist Play Day. During this session, students are guided through a number of activities that encourage active and playful engagement with art-making. Modeled after a number of surrealist exercises like the "exquisite corpse", these activities, Gude argues, allows students to access the creativity of their

unconscious minds and ultimately remedy some of the problems inherent in hyper-regimented art education situations like some schools (p. 35). This embrace of playful pedagogy in a de-formalized setting offers a sound example of what third space pedagogy might look like in community arts programs in an urban environment.

While many community arts programs are geared towards city populations, Clark and Zimmerman (2000) argue that there is also a need for rural communities to develop arts programs outside of schools. The authors provide the example of Project ARTS, which was a program designed for rural communities in Indiana, New Mexico, and South Carolina. In Indiana, for example, participants learned about the culture of their own community by investigating local history through the artistic media of photography and film making (pp. 35-36). Students in the other two states participated in similar activities, connecting with other generations of their community, working with local historians, and engaging the community with a show of their resulting artwork (pp. 36-37).

In each of these places, third space pedagogy is demonstrated as a way for art educators to connect both formal and informal learning situations. Whether these opportunities arise during lunch hours at school, afterwards in the gymnasium, or on weekends at home, informal learning paired with formal encouragement and resources can be a valuable tool for eager learners of art. There still remain questions, however, about what kinds of third space pedagogical opportunities students might be able to encounter online and what tensions arise when the worlds of formal and informal art learning converge. For this reason, I intend to address these issues in my study of teenagers' online visual culture.

2.3: Informal Learning and the Third Space

Although learning in the third space is a hybrid of educational modes, it is often characterized by what it has in common with informal learning. In order to situate the third space appropriately in the context of learning environments, it is important to further define the types of learning described by the terms *informal*, *formal*, *and non-formal* discussed in Chapter 1. Coffield (2000) employs the metaphor of an iceberg to describe learning as a whole. He argues that the small portion of the iceberg that projects out of the water (as little as $1/9^{th}$ of the iceberg's mass) would be a fair representation of the scale of formal learning. As a result, the submerged bulk of the iceberg represent the various types of informal learning. The iceberg metaphor presents two different arguments about informal learning that are particularly relevant: that informal learning constitutes a majority of a person's learning experience, and that educational implications of informal learning are often "submerged", invisible, or hidden from the learner (p. 1). For Coffield, learning takes place along a spectrum of formality, determined by three criteria: extent of framework or curricula (how clearly learning objectives are mapped and assessed), intentionality (whether the learner is aware of their learning or not), and the setting in which it takes place (p. 55). The area of formal learning is taken to mean that which is organized and structured, with clear learning objectives. This type of learning often takes place in, but is not limited to, structured environments like the school and workplace (p. 2). Coffield also discusses non-formal learning, which he argues is often conflated with informal learning but bears distinct differences. Coffield explains that non-formal learning situations are ones which are not constrained by prescribed frameworks, but still might bear some intentionality or take place in a formalized setting (such as a Girl Scout meeting, workplace training, an after school club, and so on) (p. 55). Conversely, informal learning can be understood as learning that is

unstructured, unplanned, and often referred to as learning by experience or just "experience", putting little importance on organizational structure, intentionality, or setting (Coffield, 2000, pp. 55-57; OECD, p. 1).

2.3.1: Types of informal learning. As a broad term, informal learning may take many forms. In the first half of the 20th century, informal learning had already become an established area of study for educational researchers like John Dewey (1929; 1938). Contemporary understandings of informal learning can be traced to Dewey's theories on the role of experience, not only in the natural world but also in terms of education. Dewey (1929) explains that many different areas of knowledge were first born through direct experience and moments of "intellectual significance", when objects were transformed from their instrumental states to take on more symbolic meanings. Dewey explains that "a thing is more significantly what it makes possible than what it immediately is" (p. 128). By Dewey's logic, moments of intellectual significance facilitate learning when we see past objects in their immediate, instrumental states, and instead realize that they are subordinate to other meanings (p. 128). Dewey notes that this type of understanding is central to the arts, which is clear as painters, poets, and sculptors use their own respective tools and media to extend and abstract the instrumental components of words, images, and forms into representations and arguments about tangental ideas. Through this process, even the most mundane, common experience can serve as a possible starting point for learning to take place, and it implies the recycling of cultural material to create something new.

Dewey (1929) argues that a great deal of knowledge, even scientific, is strongly tied to the human body. Dewey argues that geometry and astronomy emerged from agricultural practices, and that measurements such as the foot are clearly designed to measure distances of walking (p. 129). In this way, knowledge is constructed through direct experience, rather than

abstract or tangential contact with ideas. These ideas are supported even more recently by Lakoff and Johnson (1980), who theorize that our understanding of internal feelings and abstract concepts are also embodied through metaphors embedded in language. For example, some orientational metaphors project a physical position in space onto immaterial ideas. Lakoff and Johnson explain that concepts like "happy", "good", "more, "conscious", "health" and "control" are associated with being "up". At the same time, "sad", "bad", "less", "unconscious", "sick", and others suggest the position of "down" (p. 462-463). These metaphors exist almost invisibly in our daily life, as we attempt to process and communicate abstract ideas and feelings to others.

Under the umbrella of informal learning, some of our most embodied learning experiences are described as *tacit.* Tacit learning in the Deweyan sense is learning that takes place naturally as one goes about daily life (Dewey, 1938). The knowledge gained in these experiences is reached through social interactions, conversations, and other spontaneous encounters with external stimuli. Much like a child will learn language informally from immersion with its' parents, the behaviors of participants in online social media and other off-limits spaces of daily life create specific types of learning moments. In all of these cases, the activities at hand are not acknowledged at the moment by the learner as educationally important, but rather are invisible learning moments (Coffield, 2000; Dewey, 1938;).

Dewey (1938) argues that philosophies of education are united around recognizing "an intimate and necessary relation between the processes of actual experience and education" (p. 19). Dewey also makes the case that this type of experience is largely social and cannot exist in a vacuum, arguing that we live in a world that was built on previous human activities, and as a result our experience is affected by these external stimuli (p. 38). Dewey explains that an experience can primarily be taken as a "transaction taking place between an individual and what,

at the time, constitutes this environment" (p. 43). Interactions with other people, images, texts, and signs of all kinds are capable of shaping a person's experiences. It is through these experiences that one is able to reflect and learn, even when the learning situation is spontaneous and invisible to the learner.

Another distinctly different category of informal learning is *autodidactic* learning. Autodidactic learning behaviors often taking place outside of institutional, formal settings, and have been described as "self-teaching" types of behaviors. (Solomon, 2003, p. 3). Solomon notes that no person could ever be anywhere near completely self-taught, and in fact we rely on the transmission of information by others. While this may not apply to every learner, Solomon argues that autodidacts prefer to teach themselves or to pick up knowledge in non-teaching situations. The "ornery" rejection of being taught is what Solomon characterizes as autodidactism (p. 3). However, autodidacts are not completely isolated as learners, and rely often on existing literature and resources, as well as interactions with peers, teachers, friends, relevant experts, and other communities to support their learning. Autodidactic learning often takes the shape of a project or goal for learning a skill unrelated to needs at school or work (Livingstone, 1999, pp. 10-11). By this criteria, Leonardo da Vinci might be one of history's most famous and prolific autodidacts, whose self-education spanned the disciplines of the arts, sciences, and countless others. In popular culture we may find a suitable model in the popular film *Good Will Hunting,* where Matt Damon's character is a Harvard janitor who is deceptively brilliant and thoroughly self-educated on a range of subjects, particularly theoretical mathematics (Bender & Van Sant, 1997).

Knowles (1980) argues that due to increased life spans in the modern era, the need to learn in contemporary society is necessary beyond traditional school years and extends into

adulthood. He explains that in previous eras, dating back to ancient Rome, periods of social change would occur over a much longer period of time than an individual's lifespan, and therefore what a person would learn in their youth would remain valid for the rest of their lives. However, at the early part of the 20th century the world began to experience quicker periods of social change, and longer life spans (p. 40). According to Harvey (1989) this acceleration of economic activities and the collapse of space continued through at least the 20th century, and as a result, the pace of social life changed with it (p. 230). In early 20th century industry the introduction of time cards, standardized work weeks, and other measures signified the result of "Fordist" efforts of industrialization, which shaped the ways people conceived of time and exercised regiment and control over the hours of the day (p. 230-231). At the same time, new forms of transportation were bringing populations into the cities for work and tourism, shipping products across the country, and closing other distances in space. As a result, the postmodern era continues this time-space compression, as evidenced by improved systems of communication, electronic banking, and others (p. 285). Harvey argues that as space appears to shrink to a "global village" and time horizons shrink to a create a "world of the present", we must learn to cope with an overwhelming sense of compression in our spatial and temporal worlds (p. 240).

For Knowles (1980), societal transformations like these have resulted in the need (and expressed desire) of some adults to continue learning for a variety of reasons, such as work, and intrinsic, interest-driven reasons (pp. 40-41). In studying the self-initiated learning activities of adults, Knowles categorizes many of their behaviors as *andragogy,* responding to the related concept of *pedagogy*. By breaking the term *pedagogy* into its two respective parts, translated into "child" and "leading", Knowles describes pedagogy as literally "the art and science of teaching children"(p. 40). To respond, Knowles describes andragogy as implying "adult" learning

practices, but which he argues can be applied to the learning behaviors of children as well (p. 42-44). For Knowles, andragogical learning is often project-oriented, self-guided, and intrinsically motivated.

Knowles (1980) explains the key differences between pedagogical and andragogical learning. In pedagogy, the learner is a dependent one, whereas andragogy defines the learner as in a process of maturing toward self-directedness. Additionally, ordinary experience plays a greater role in andragogical learning, as does the impetus of an intrinsic need or problem to be solved. Finally, pedagogical learners see learning as a process of acquiring content, which mostly will become useful later in life. Conversely, andragogical learners have a desire to apply what they learn today to live more effectively tomorrow (p. 44). The activities of the adults observed and interviewed by Knowles were largely self-initiated, and patently informal in nature. However, for adults and children alike, Knowles (1980) argues that the most important facet of learning is "learning how to learn", or the skills of self-directed inquiry (p. 42). The implications for andragogical learning in the 21st century, as technological and social conditions change at an exponential pace, are great.

Livingstone's (1999) definition of informal learning also focuses on the consciously self-initiated activities of learners, as opposed to the common tacit knowledge gained through daily experience. This explicit informal learning is characterized uniquely by the participant's identification of the activity as significant learning (p. 2). Livingstone investigates self-motivated learners with a particular goal in mind, diverging from the "submerged" and non-pedagogically aware informal learning behaviors described by others towards something slightly more structured but still informal at root.

Coffield (2000) also argues that informal learning is an important area for research in education, explaining that formal education and training comprise only a small amount of the learning that takes place in schools, colleges, workplaces, and non-institutional settings like the home, family, and community. He argues further that these formal types of learning and training are ultimately dispensable to the learner (p. 1). Coffield argues that educational "qualifications" have become archaic, and that learning is no longer seen as the "unrepeated achievement of the young", but the lifelong task of all (p. 5). However, it is recognized that access to continued education is ultimately informed by an individual's access to social capital and communities. Coffield argues that close ties to social capital and privilege may also have their drawbacks, as these conditions often exhibit the tendency to inhibit, constrain, and control people and reinforce social strata (p. 7). With the goal of cultivating a "genuine culture of lifelong learning", Coffield argues that policy makers, researchers, and others in the debate should pay greater attention to the existence, significance, and necessity of informal learning. Additionally, Coffield argues that informal learning should be understood as a means of sparking curiosity of all types of apparently economically "useless" knowledge. Also, Coffield advocates that there is valuable learning that does not lead to qualifications or jobs, and that the claims of social capital should be explored and help inform indicators of informal learning. Coffield finally calls for the study of "learning entrepreneurs", or those who make a career or identity of informal learning, taking it upon themselves to seek out new knowledge in daily life (p. 8).

2.3.2: Informal art learning. Consistent with trends in educational research at large, scholars in the field of Art Education have long been interested in the role of informal learning in terms of both making and responding to visual texts (Duncum, 1985; Gude, 2007; Haanstra, 2010; Hicks, 2004; Wilson, 2003; Wilson, 2008a; Wilson, 2008b). Central to almost all

children's self-initiated artwork is the concept of popular culture. In some cases, educators concerned with Visual Culture Art Education have found new possibilities for rethinking the roles of pedagogy and content in the art classroom by considering the value of students' informal learning experiences and creating a bridge between the informal and formal learning spaces inhabited by children.

A study by Haanstra (2010) examines the self-initiated artworks of children, created at home, outside of school instruction. In this study, Haanstra identifies the emergence of four types of art created by these children: applied art, popular culture, personal experience, and traditional art (p. 271). Applied art, the most common type, consists of communicative objects like greeting cards or notes, fashion, decoration, or functional objects. Popular culture art, the second most common type, often consists of drawings or copies from cartoon characters, comic books, and other forms of media. "Personal experience" drawings might include a drawing of everyday things like the child's room, emotions, or fantasies. Finally, some children's self-initiated artworks also include traditional forms such as still-lives, landscapes, or abstractions (p. 273). Haanstra also explores how these four areas relate to two specific dimensions of learning: incidental versus intentional, and social versus individualistic. Personal experience art, Haanstra argues, is the most incidental and most individual of the areas. Popular culture lies directly between social and individual dimensions (as children might copy from pictures by themselves or with friends), and slightly less incidental than personal experience art. Applied art is more social and more intentional than popular culture, and finally traditional art is highly intentional and highly social (p. 278).

Although popular culture art forms may comprise just one type of the artwork children make on their own, it is arguably one of the most common and prevalent, even before the dawn

of contemporary pop culture forms of television, Internet, comic books, and so on. Duncum (1985) investigates the activities of 35 notable artists born before 1901 as children learning to draw and finds close ties to forms of popular culture in nearly all of them. Using these examples, Duncum argues that children influenced by popular media tend to be more actively discriminating of their own work to their benefit, using the understandings they build through these experiences to further their artistic development (p. 93). In this study, Duncum (1985) finds that many of these artists utilized tools of copying others, drawing from pictures, tracing, and so on. While these processes are often rooted in the fine arts tradition, Duncum argues that they have more in common with today's popular culture than meets the eye (p. 101). Because of this, the idea that students can learn through their natural engagement with popular culture is not one that should be demonized or feared for its negative impacts on children, but rather should be understood for the powerful modeling tool it is for children's early art learning experiences.

The concept of play, in which disorder is embraced, appears to be at the heart of students' self-directed art-making and learning. Caillois (1961/2001) attempts to define play and argues that it has performed a crucial role in the development of civilization in practically every cultural area of knowledge. Caillois explores this concept more fully, particularly in its' relationship to games, which are ruled, organized, and involve gains and losses. Instead, the concept of play is organized around entirely different characteristics. First, play is free, and non-obligatory. Play is also separate from daily life, circumscribed within a particular space and time, which often arises somewhat spontaneously or is unplanned. Additionally, play is uncertain, without preemptively decided outcomes, and it is unproductive, resulting in the creation of no goods or new elements of any kind. Play is also accompanied by a sense of "make-believe", or a special awareness of a second reality, as opposed to "real life" (p. 10).

Gude (2007) also argues that learning grows from "creative, deeply personal primary process play", and she suggests that this type of play be free, and not directed toward mastering techniques or solving specific problems. Instead, informal learning in art-making takes place during opportunities to "mess around" with a variety of media, experimenting with lumps of clay or blots of ink (p. 7). The concept of play allows learners to tap into their creative unconscious and more closely mirror the learning behaviors of artists, who immerse themselves in making and interacting with emerging images and objects (p. 8).

Hicks (2004) also supports the argument that the process of art-making holds unique characteristics that can be tied to the act of play. Hicks claims that making art is an attempt to come to understand the world, both in physical and social terms. Here, play is characterized as emergent from an innate curiosity about the structure of the environment in which one plays and, as a result, art can be seen as a disciplined curiosity, "a probing of the possibilities hidden in lived experience, in materials, and in sensations (p. 289). Hicks argues that the most relevant types of play for learning are "ininite games" (p. 289). This term is drawn from Carse (1986), who explains that there are two types of games: finite and infinite. Whereas finite games are played for the purpose of winning, infinite games are played with the purpose of continuing the play (p. 3). Infinite games are not bound by beginning or ending times, points, rulebooks, or positioned on a playing field or any other specific space. Instead, the ephemerality of infinite games allows them to pop-up at random, existing for an indeterminate time (pp. 6-7). However, it is interesting to note that both finite and infinite games have rules. Carse compares these two sets of rules, explaining that the rules of an infinite game are like the "grammar of a living language", where the rules of a finite game are like the rules of debate. In the infinite game, the rules exist to continue discourse between parties, but in a finite game the rules are used to bring

the speech of another to a stop (p. 9). Hicks (2004) argues that just as infinite games are sustained by encountering novel situations, learning about the arts and making art is fed by "new and unexplored encounters with the physical and cultural world" (p. 289). This dialogue between students and their surrounding world should continue infinitely, creating loops of investigation and synthesis of new knowledge. In this study, the ways in which students "play" online to construct new knowledge will be of particular importance.

2.4: Teenagers' Participatory Online Visual Culture

Many aspects of informal learning experiences have translated easily into 21st century terms, as the Internet and new technology have placed educational "moments of significance" literally in the laps and hands of students. Jenkins (2006a) describes today's culture as one of convergence, where "old" and "new" media collide. This new form of culture is characterized by radical changes in the ways information and media flow in contemporary society, and an increased focus on participation and the blurred boundaries between consumers and producers (p. 2). This section will identify the key qualities of this convergence culture, and it will also explore the related concepts of new media literacies, genres of participation, and online media creation.

2.4.1: Convergence culture. Jenkins (2006a) argues that online technology and media have led to a "convergence culture", in which old and new media have collided, grassroots and corporate media have intersected, and the role of media producers and consumers now interact and overlap in unpredictable ways. This new form of information flow has resulted in "prosumers" who simultaneously occupy both roles of producer and consumer (p. 1-2). Jenkins defines the paradigm of convergence culture first through the concept of media convergence, or the flow of media content across multiple platforms (p. 2-3). Equally important to convergence

culture is the concept of participation, which alters the traditional notion of passive media spectatorship, allowing for greater interaction between media producers and consumers. Forms of heightened participation at the time of Jenkins' writing were evident in the products of online message boards and forums, and today might extend into the realms of YouTube and social outlets like Twitter and Facebook. However, Jenkins notes that not all participants in this system are created equal, and that the powerful interests of corporations still often outweigh the influence of individual consumers or grass-roots groups (p. 5). The third defining characteristic of Jenkins' convergence culture is collective intelligence, which he describes as an alternative source of media power and a new mode of consumption that gathers and synthesizes information from many users toward a common goal. Collective intelligence operates on the assumption that no one person can know everything, and that greater understanding can be achieved through each contributing their own bit of knowledge to the collective (p. 5). Wikipedia serves as a simple example for this type of information flow, as users collectively contribute to articles on virtually any subject by consensus, although this site in particular is vulnerable to issues of validity. Jenkins concludes that collective intelligence and other convergence culture outgrowths fundamentally alter the logic by which corporate media entities operate, as well as how media consumers process news and information (p. 17).

2.4.2: New media literacies. An important development of convergence culture has been the introduction of new media literacies (Jenkins, Clinton, Purushotma, Robison, & Wiegel, 2009). These new conceptions of literacy have not radically departed from traditional ones, but have rather built off of them, and often involve social skills developed through collaboration and networking. Skills such as play allow students to experiment with their surroundings as a form of problem solving. Collective intelligence involves the ability to pool information and compare

notes with others toward a common goal. The skill of networking allows students the ability to search for, synthesize, and disseminate information. Other examples of these new media literacies include appropriation, multitasking, distributed cognition, and transmedia navigation and judgment (p. 4). Jenkins et al. argue that these are skills that many students already are developing naturally through their own interaction with new and social media. As a result, the authors argue, students should be given opportunities in which these skills can be practiced. To demonstrate the power of an intellectually curious child with a computer in today's world, the authors share the examples of a young girl who created an online Harry Potter fan fiction site in order to help others read and write, and a teenage male who helped to develop the Firefox web browser. The example of Josh Meeter is especially compelling in terms of what online informal learning might offer certain teenagers making art. Meeter, as a high school student, entered a work of claymation into an online animation contest, which became widely circulated on the Internet. This exposure led Meeter to networking opportunities with film score composer John Williams and director Steven Spielberg, who featured Meeter's work on his Dreamworks production company's website (p. 5). In the online world, it is clear some youth are able to reach out and connect with the professionals (and often idols) they wish to learn from. Jenkins et al. warn, however, that schools have lagged behind after-school programs and other informal learning environments in fostering the development of these new media literacies (p. 4).

Stafford (1998) might classify Meeter and his counterparts as members of the "digiterati", or an elite group of digital-natives. These digiterati, according to Stafford, interact with and compose in forms of language and meaning-making that transcend the conventional Gutenbergian literacy skills, and build upon them for the 21st century (p. 36). The term, referring to a "literati" of educated consumers of books and literature, implies some amount of exclusivity.

It should be noted that many teenagers simply will not share the experiences of Meeter, and that this concept of the "digiterati" clearly does not blanket an entire generation of learners. Other researchers have argued that fluency with technology is becoming the alpha-competency of our society, even for the average person, and that familiarity with new forms of communication and media are an indispensable skill for the 21st century (Choi & Piro, 2009, p. 29).

Interested in what average teenagers are doing online, Ito (2009) argues that youth are now in a place to reshape traditional notions of literacy, pushing back against cultural norms and established rules (p. 24). Here, Ito describes new media literacies as an expansion of the cultural and social competencies of traditional literacy. For Ito, new media literacies are at the center of teenagers' deliberately casual forms of online speech, their nuanced social norms of networking, and their new forms of media creation and representation. Ito argues that these new extensions of literacy are not something which youth should "grow up" from, but rather are likely symptomatic of foundational shifts in forms of cultural expression (p. 26).

Ito (2009) argues that forms of online social media are providing opportunities for youth to exhibit agency and expertise that exceeds that of their elders, and thus results in conflicts over concepts of authority, learning, and literacy (p. 14). However, Ito's research suggests that not all youth engage with online social media in the same way or to the same degree. By examining the out-of-school online behaviors of a number of students, Ito describes their levels of involvement with online media through a selection of case studies. Ito finds that teens' levels of involvement vary within genres of participation (p. 1). The first genre in which youth often interact with new media is friendship-driven, between real-world friends and school acquaintances and initiated by their desire to connect and socialize online. These opportunities often allow youth to explore and develop their sense of self, status, and reputation. The second genre that Ito describes is interest-

driven. In this form of engagement, youth utilize online media in order to pursue understandings of particular interests, specialized activities, or other social niches (pp. 15-16). These teens' media ecologies are affected by a number of social factors (the home, family, rules), which contribute greatly to the type of involvement a teen might have with online media. These behaviors range from "hanging out" (socializing), "messing around" (looking around for more information, experimentation (photo manipulation, gaming), and "geeking out" (intense engagement, particularly with one genre or type of site), or a combination of each in different scenarios (p. 17). Youth may cross these borders at any time, and the lines between genres of participation may erode under the right circumstances. Ito offers the example of a student who begins posting pictures to Facebook as a friendship activity, but then as a result begins “messing around” with photo manipulation and other forms of media creation to impact their social image among their peers. Through this example, youth engagement with online social media is demonstrated as fluid in nature, and depth of participation is variable depending on the situation (p. 18).

2.4.3: Forms of online visual culture consumption/production. In the same way that written literacy allows for the production written texts, new media literacies have led to the production of a wide variety of cultural texts in a range of forms. Internet-based forms of production bear unique qualities that reflect their context, often exhibiting participatory and multi-modal dimensions. Over the course of the past decade, researchers have been heavily invested in understanding the diverse visual culture of the Internet (Ito, 2009; Jenkins et al, 2006; Knobel & Lankshear, 2007), including within Art Education (Bae, 2009; Buffington, 2008; Colman, 2004; Freedman, Heijnen, Kallio-Tavin, Karpati, & Papp, 2013; Han, 2011; Liao, 2008). In the literature to follow, it will be demonstrated that online visual culture consumed and

produced by teenagers can take the form of static images, videos, computer programs, and countless other hybrid combinations.

Buffington (2008) discusses the rise of the term "Web 2.0" to describe a fundamental change within convergence culture of how information is created and used via the Web. In the previous decade, creating content for the web was costly, difficult, and would require some amount of technical skill by the author. However, recent years have seen a growing trend of user interactivity creating media for online channels as well as consuming it. Platforms like FaceBook, YouTube, flickr, and other social networking sites have created a culture of media creation that is no longer the domain of experts, but rather of everyday people including students (p. 37).

Some common examples of online visual culture can be found in online "memes", a cultural phenomenon that involves the replication and transmission of "infectious" ideas, words, and images, often through humor, satire, and subversive responses to other media (Knobel & Lankshear, 2007). The term *meme*, originally derived from biological theories of gene transmission by Richard Dawkins, has been translated into online cultural production as a way to understand how ideas become established as popular culture, especially through online avenues. Dawkins (2013) illustrates in a somewhat viral video of his own that genes and memes are two similar acting but distinctly different types of replicators that are produced by humans. Dawkins explains:

Memes spread through human culture as genes spread through the gene pool. Memes can be good ideas, good tunes, good poems, as well as driveling mantras. Anything that spreads by imitation (as genes spread by bodily reproduction or by infection) is a meme. As with genes, we can expect the world to become filled with memes that are good at the art of getting themselves

copied from brain to brain, or blog to blog. Embracing some of the more absurd qualities of many of today's popular online memes, the video of Dawkins' lecture fittingly concludes with an autotuned remix of sound clips from his speech, complete with a psychedlic 3-dimensional projection on the stage and Dawkins himself soloing on an electric clarinet.

Knobel and Lankshear (2007) define online memes in terms of three criteria: fidelity (the ease with which the meme can be reproduced or transmitted from mind to mind), fecundity (the rate or speed of transmission), and longevity (how long it lasts) (pp. 200-202). By these criteria, online memes can take many forms (video, image, text, and other web-formats), and are likely to be translated and appropriated between forms. Knobel and Lankshear investigate how these qualities are manifest in a number of popular online artifacts. In some cases, original user content becomes a meme, as is the case for websites such as the *Church of the Flying Spaghetti Monster*, which makes use of social networking to lampoon religious philosophy and create discussion amongst communities of atheists. Other memes repurpose and remix existing images or material, as is the case in *All Your Base Belong to Us*, a long-enduring image meme that pokes fun at a line from a poorly translated Japanese video game. Similarly, the *Bert is Evil* meme consists of a series of photoshopped images that depict the Sesame Street character Bert alongside historical despots like Osama Bin Laden and Hitler and at the site of iconic disasters. (p. 205).

While it is clear that humor plays a large role in the fidelity and popularity of many memes, occasionally the target of this laughter is an unwitting victim. In the case of *Star Wars Kid,* a self-shot video of a high school student clumsily practicing lightsaber maneuvers with a metal golf ball retriever was taken from a high school's audio-visual lab by a group of other students. After school, this video was posted to YouTube without the subject's knowledge. Quickly, the video became one of the most viewed, remixed, and altered videos on YouTube. As

a result, *the subject of the video,* Ghyslain Raza, has reportedly endured immense amounts of bullying and at one time was even committed into a psychiatric ward for treatment (Popkin, 2007). While the power of memes to "infect" the visual culture of millions of people are clear evidence of its status as a prevalent form of popular culture production, it also exposes its dangerously subversive nature and some of the ethical difficulties that arise across social media, particularly in the lives of teenagers.

Even though memes such as these might reflect popular media more than fine art, Colman (2004) argues that the Internet can also be thought of as a tool and a venue for unique types of art to take place. Some of what is created and consumed online by youth is what Colman describes as "Internet art" (or net art), as opposed to "art on the Net". She describes the ease with which art can be reproduced digitally on the Internet, scanned from original paintings, and exhibited in online galleries navigated by clicks and hyperlinks. These types of reproduction and presentation have made previously existing artwork and imagery incredibly easy to retrieve. Colman classifies these reproduced and exhibited images as "art on the Net". However, the difference between this and net art is that the latter is created with and for the online environment in mind (p. 62). It would be expected that a work of net art would make use of the Internet's unique qualities, particularly its interactivity and multi-modality. In the web-based jellotime.com by Rafael Rozendaal (2007), visitors to the URL are greeted by an illustration of a mold of red Jello sitting on a plate. As the user moves their mouse over the Jello, the website's intended function kicks in and the Jello becomes animated, wobbling and triggering a "boing" sound. This simple task can be repeated until the user gets bored. Another work of Rozendaal's, (2006) papertoilet.com, allows the user to spin an illustrated toilet paper roll until it is completely unwound. Compared to conventional websites that have an extrinsic purpose or information to

share, these works appear to embrace the playful pleasure of interacting with the mundane through digital interfaces. This approach to Internet-based art is simple, humorous, and subversive in its delivery, and serves as a good example of how concepts of play translate into online visual culture production. Additionally, it demonstrates that the unique qualities of web-based media can forge new understandings about visual culture on the Internet.

A good deal of research within Art Education on online forms of visual culture is focused on examining students' informal learning and social behaviors via online media (Bae, 2009; Freedman, Heijnen, Kallio-Tavin, Karpati, and Papp, 2013; Han, 2011; Liao, 2008;). Bae (2009) employs an ethnographic study of a selection of these girls and their participation within Cyworld, a social networking platform. Through the construction of their own personal profiles and interactions as peers, these girls used their relation to popular culture forms as a way of negotiating their own identities, both as global citizens and as outsiders in mainstream U.S. culture. This method of play, Bae argues, offers her participants agency in the face of societal assumptions and demands (pp. 1-2). In terms of convergence culture, Bae's participants demonstrate transmedia navigation, using information from a variety of sources: both Korean and American, traditional and popular. In addition, the girls participated actively in consuming and producing digital media via profile photos and other visual and textual aspects of their web profiles. Finally, these participants demonstrate collective intelligence through their ability to use social media as a platform for discourse (however informally) on their own concepts of identity as global citizens and domestic outsiders (p. 99-103).

In some cases, video games have proven to be a valuable source of students' informal learning experiences online. Gee (2007) provides an understanding of what video games offer in terms of learning and literacy, and provides 36 learning principles gleaned from his observations

of various video games and gamers. In this analysis, Gee argues that gamers have deep experiences with games as semiotic domains, which are spaces where unique types of interaction between specific signs, symbols, and texts create a system of literacy (pp. 15-19). A person can become literate in the semiotic domains of art, music, mathematics, science, basketball, and, Gee argues, video games. Gee argues that video gamers can learn how to become active, critical learners through their experiences, coming to firm understandings about the game's design, the semiotics associated with it, and to think on a meta-level about the domain they are communicating within (pp. 49-50). Gee also argues that video games teach users much about identity by offering a space where real-world consequences are lowered. Often times, gamers are negotiating three specific identities: a real-world identity outside of the game, a virtual identity within the game (such as the avatar on screen), and the projective identity, which is the interface between a learner's real-world and virtual identities. The projective identity can be understood as a projection of the learner's real-world goals, values, and desires onto the virtual identity (p. 65). Gee also argues that video games offer learners a way to explore situated meaning, understanding the game in relation to other texts, modalities, and gaining tacit knowledge through gameplay. Other learning principles proposed by Gee involve the idea that doing is often valued over telling when gaming, that bottom-up skill acquisition is valued, and that independent discovery plays a central role to the experience of gaming (pp. 137-138). Furthermore, Gee argues that video gaming allows gamers to create cultural models of the world, about learning, and about the semiotic domain they are participating in (pp. 166-167). Finally, Gee argues that video gaming is a largely social act that involves distributed learning (meaning/knowledge is distributed across the learner, objects, tools, symbols, technology, and the environment), dispersed learning (meaning/knowledge is shared with others outside the domain/game),

participation in an affinity group, and become an insider and producer in the domain, able to customize the learning experience (p. 197)).

The open-ended virtual world of Second Life has also provided an interesting starting point to understand what students might learn informally in terms of Gee's (2007) learning principles. Han (2011) investigates how users' constructions of personalized avatars allow them to explore new identities, masking themselves in other genders, ages, races, or species. This type of expression allows users to "be who and what they want to be" (p. 42). The interactive and boundless nature of Second Life has also led some users to learn within the virtual system, whether informally (among peers or of their own volition) or formally (through real-life institutional extensions into the Second Life world). Some universities have offered distance-learning sessions held in Second Life, with all the real world trappings of credit hours and tuition bills (Han, 2011, p. 44). Conversely, informal learning also plays an important role in Second Life. Non-academic forms of learning might include workshops on building, fashion design, or language (p. 44). Some have even started film clubs and shot their own films (known as "machinima") entirely in the virtual world with its camera functions. Han also argues that Second Life offers a rich experience for art creation, as users can freely construct any item with the built in 3-D modeling tools (p. 42). In addition to creating art, Second Life can be used as a place to view and discuss art as a group through real-time chatting and on-screen action. Han argues that the environment provided by Second Life can offer a path to constructivist knowledge, as avatars can come together to solve problems, communicate, and build communities around educational goals.

Liao (2008) argues that Second Life is a cultural interface, meaning it not only constructs its own visual culture, but also reflects the culture from which it comes (p. 88). Liao explains that

when a person creates an avatar, they are in effect creating a version of one's self that extends into the interface. An avatar, Liao argues, is not just an image of a body, but rather a projection of the self onto an alter ego. The avatar is not a physical body, but instead an "accumulation of imagination and desires", that can be re-molded infinitely. When a person creates an avatar, they typically do not represent their real world body, but rather use it to become a celebrity, a cartoon character, or some other fantasy embodiment in the virtual world (p. 89). This serves as a fundamental example of how students' desires (fed by popular culture and media) can be made manifest in personal online creations, and even serve as a way to act out new concepts of identity, self, and other issues difficult to deal with candidly at school. Perhaps one of the most important things teenagers are creating online (through games like these, online profiles, and other web presences) are models of themselves.

A recent study by Freedman et al. (2013) examines international students' participation in a variety of informal, self-initiated visual culture groups. The students participating in this study created media in the forms of gaming, fanart, video, graffiti, and other "off-limits" art not typically found in classrooms (p. 106). Taking place outside of schools, these activities are described as largely informal in organization. These groups are used by teenagers to increase their art knowledge and skill, and also to socialize and entertain themselves (p. 103). Through interviews, the authors conclude that students such as these often seek out visual culture learning communities (VCLCs) both to socialize with peers who share an interest in a given subject, as well as to gain art knowledge that they are not learning in schools (p. 106). While some VCLCs have an online component such as a message board or social network, many also involve offline friendships and "working" relationships (p. 105-106). When these participants were asked why they engage in these activities outside of school, many reported a lack of access to art classes and

resources for their type of work and adult biases regarding the subject matter (p. 106). The authors of the study also state that two trends of participant behavior emerged from their data: the construction of a code of behavior and collaboration between VCLC participants (p. 108). Furthermore, the authors indicate that the participants in these groups often learned about art both in art-making knowledge and art context knowledge. These skills included the development of visual techniques and skills, conceptual knowledge, knowledge of visual culture, and self-knowledge and identity (pp. 109-111). The authors conclude that art-making knowledge develops across as well as within visual culture forms, and that students have a desire to learn about art and visual culture that is often missing from the school curriculum. As a result, Freedman et al. argue that art-making and social networking can form an educationally rich feedback loop for self-learners (p. 113). Their study provides a relevant and contemporary picture of how teenagers across the world gravitate toward each other in order to learn (especially about subversive or off-limits topics), as well as a focus on the social dimensions of learning informally in groups. However, Freedman et al. refrain from going into great depth on what is unique about online learning in VCLCs, or on the online visual culture sought out and created by its participants. For this reason, my study aims to address these issues and supplement contemporary understandings of how students informally learn and create, driven by their own interests, with a special focus on online culture and the third space as a facilitator.

Manifold (2009) investigates the VCLCs inhabited by adolescents who are engaged in fanart and cosplay activities. Manifold draws upon the work of fan culture theorists to take an affective semiotic approach when examining these learning groups (Jenkins, 2006b; Hills, 2002). An affective semiotic framework views meaning as arising out of affective sets of experiences comprised of human drives and desires, social interactions, and the collective sharing of

knowledge about a core subject or phenomenon (Manifold, 2009, p. 259). In the case of fanartists and cosplayers, Manifold argues that these communities allow adolescents, who desire to know who they are at their "innermost core", might recognize aspects of self in a popular visual culture phenomenon and engage with this material in a search for understanding their own identities. Through engagement with specific sites of visual culture, some fanartists and cosplayers are able to move from exploring an internal self to the construction of a more public role identity. Through this search for self, art skills are gained from the replication of the visual artifacts and aesthetic styles of the fan phenomenon (by drawing, painting, or dressing up as a character, for example), which may in turn contribute to the construction of an identify as an "artist" and a desire to continue this work in adult society. Furthermore, these VCLCs offer an opportunity for a fan to socialize and interact with others with shared interests, which helps to support the adolescent's emerging internal and external senses of identity (p. 260).

In order to understand how this progression from internal self to an external role identity takes place, Manifold (2009) draws upon a set of factors of "self-efficacy" (or ability to envision one's self as an artist) described by Au (Prevonik, Smith-Shank, & Au, 2007) that contribute to art students' prolonged interest and enrollment in fine arts courses in secondary school. These factors include: a *curiosity* about an interesting subject; the *challenge* of learning difficult artistic tasks and processes; *involvement* in intrinsically pleasing projects; a sense of *importance* gained through being perceived as competent; *recognition* of one's successes; a desire to *compete* against others; engagement in *social interactions*; and *support* from family, school, and friends (Manifold, 2009, p. 260). Manifold argues that these factors function in five stages, beginning with a desire to draw pictures. The second stage is achieved when the student becomes inspired by the aesthetic qualities of the site to acquire art-making skills and share their work with peers.

Stage three sees the student gain recognition and praise for their work, inspiring them to take up more challenging work in art-making. This stage is also characterized by competition between peers, which paired with support from teachers and others for their efforts, encourages the learner to continue pursuing art. In the fourth stage, students take their art even more seriously, planning to pursue it as a career or study at the university level. At stage five, a learner has achieved "self-efficacy" by becoming committed to the practices of artmaking and seeking careers in art-related fields (p. 260).

2.5: Connecting OVC and Art Education

As a result of increased academic focus on new and social media in learning, the field of Art Education has responded by attempting to bridge the disparate worlds of the formal and informal, and the online and offline. By using various forms of online visual culture in the classroom, educators have advocated for the cultivation of greater critical thinking skills, as well as an understanding of students' place in a global society (Blandy, 2009; Buffington, 2007; Darts, 2010; Delacruz, 2009; Duncum, 2004). In addition to these measures, others have attempted to bring online learning technologies into the classroom in order to supplement formalized teaching goals and curricula (Burton, 2010; Carpenter & Cifuentes, 2011; Castro, 2009; Colman, 2004; Overby, 2009).

2.5.1: Better learning through online visual culture. In some ways, researchers have moved online learning situations into classrooms by advocating for students' development of critical thinking skills. In order to encourage their students to become informed consumers of online media, some teachers have used student interests as a springboard for discussion. Duncum (2004) calls attention to the multimodal nature of popular visual culture. This position is informed by Mitchell (2002), who argues that any visual culture object is never purely visual

(pp. 172-173). Duncum (2004) argues that media such as television, film, and especially the Internet serve as valid examples of this point today (p. 252). While the two concepts might be easily confused, Duncum explains the difference between multiliteracy and multimodality. Multiliteracy refers to the multiple readings of a single site from multiple positions, while multimodality refers to factors such as images, language, or sound used together (p. 253). Duncum argues that the multimodal images and sites encountered by students are a powerful force that produce "highly seductive experiences that are not in everyone's best interests", often created by those with profits, not people, in mind (p. 262). For Duncum, Art Education has a distinct responsibility to equip students with the ability to become critical consumers of their surrounding visual culture. This can be achieved by deconstructing its artifacts and examining their mechanics (for example, turning the sound off on a television to focus on its images, or removing the text from an advertisement to see its composition more clearly (p. 252).

Duncum (2011) later addresses the visual culture produced by youth on YouTube, paying attention largely to what he categorizes as the parodical and the socially transgressive (p. 24). Duncum points to a number of young prosumers who create sexualized subversions of popular superheros, videos of Barbie torture, and parodies of the popular televison show *Gossip Girls* (pp. 25-31). While the value of a deconstructive approach to online visual culture is evident, Duncum warns that educators must walk a fine line between negotiating the demands of institutional learning, and the transgressive demands of youth (p. 24). Because the ways teenagers use online resources to create continue to change, further research on this topic would be a valuable asset to Art Education. While Duncum is able to provide a survey of what types of transgressive media-making by youth exists online, the processes of interviewing and close observation associated with case study research would allow greater insights into the thinking

processes and motivations of teenage media creators like these. By pursuing these issues in my study, I hope to add depth to what is already known on this topic.

Buffington (2007) is another art educator who investigates how critical thinking can be achieved through online technology, arguing that a connection to the World Wide Web is a valuable educational tool in schools. She describes critical thinking as a historical trend in education dating back to Deweyan notions of reflective thought, scientific method, inquiry, and research. Buffington points out that there is little agreement on definitions of critical thinking in contemporary Art Education literature (p. 20). However, Buffington notes that these ideas have evolved through various stages and today assigns a definition to critical thinking that is described as "identifying an issue, idea, artwork, or anything else from multiple perspectives" (pp. 19-20). In short, Buffington's definition of critical thinking would include a student being aware of the existence of divergent perspectives as well as the reasons for these differing perspectives (p. 20). Buffington argues that art educators might apply the World Wide Web (WWW) in service of promoting critical thinking in three ways. First, she argues that the WWW allows students the opportunity to investigate controversial social issues from varied perspectives. Second, the WWW allows students to investigate conflicting interpretations of artworks. Finally, Buffington recommends the use of WebQuests, which are inquiry-oriented and guided activities employed by teachers. These types of processes ask students to identify an issue, and then gather, process, and evaluate information to form their own conclusions (pp. 20-21).

For some, the Internet's potential for economic or political transformation is an area of interest (Blandy, 2009; Darts, 2010; Darts, 2013; Delacruz, 2009). In the case of open-source communities online, radical anti-capitalist programmers are able to compete with software conglomerates and change the way intellectual property is shared between creators and users

(Darts, 2010). Open-source typically refers to software that is programmed collectively and freely shared among users, and whose digital code is left open to users so that they are allowed to alter the programming, make improvements, or examine the mechanics of it (OSI, 2013). This is a highly participatory approach to software development, as well as one that allows for the program to evolve as dictated by the collective contributing to the code, as opposed to a top-down structure of programmers. In essence, open-source programs like the Internet browser FireFox by Mozilla and the web-publishing platform WordPress are constantly changing and being enhanced by their users, not simply people at the top of the software chain. These decisions are made through voluntary participation, critique, and re-invention at a grassroots level. The approach of open-source also translates directly to collective knowledge repositories such as Wikipedia, which allow users to submit and edit articles on virtually any subject. While this raises concerns for some about the credibility of information found on the website, members of the Wikipedia community actively (and almost obsessively) scour articles for errors, or take pride in being the first to submit new developments to existing nodes.

Darts (2010) views the medium of digital source code as a powerful force for expression in the 21st century, referring to it even in terms of a "weapon". He explains that an open-source code was often included with computer software or drivers for hardware, until 1980 when Xerox began to charge consumers for access to the source code for one of their copiers. In the past few decades, this has become commonplace in the marketplace of technology, as consumers lost access to the "nuts and bolts" of computer software they had purchased. Even so, open-source communities have remained vibrant through operating systems such as Linux or the revolutionary and extremely affordable "Darwin" 3-dimensional printer, whose schematics and instructions for building are registered under general public licensing (GPL) or "copyleft". In the

case of copyright law, the creator of an object is given the rights of modification and distribution. Copyleft instead gives these powers to the user as well, and stipulates that any contributions made to code must also be considered shared. With the world-wide-web, these types of collaborations seen in open-source programming have become even more commonplace, and the open-source Linux system powers the data-servers of web giants like Google, IBM, and eBay. The open-source approach in these cases adheres to the do-it-yourself (DIY) tenet of a grass-roots, collective movement and therefore are important in considering as a vital aspect of new and social media. Darts (2013) has applied these concepts into his own artistic and educational practice with the creation of "pirate boxes" inspired by pirate radio transmissions, which use free and open source software to create wireless communication and file sharing network hotspots in public locations. In a field where intellectual property is highly valued and cautiously guarded, developments like these have attempted to bring new ideas regarding media authorship and informational freedom into art classrooms. Through an "edupunk"[3] approach like this, educators are beginning to find ways to challenge the corporate interests that control online content and information.

Blandy (2009) sees developments in new media and Art Education as a positive force for creating a more democratic, connected world. Blandy draws from the theories of Dewey and Lanier to argue that all kinds of education (both formal and informal) are essential to producing a politically enlightened and engaged citizenry, and as a result technological developments of the 21st century have led to great advances and possibilities in both arenas (p. 108). Blandy discusses the rise of e-books and supplementary online materials as a valid way to integrate new media

[3] Coined by educational blogger Jim Groom, edupunk is theorized an approach to education that is unrestricted by the limits of commercial educational tools such as Blackboard and Powerpoint, and applies the anti-establishment punk ethos of bands such as the Clash and the Sex Pistols to learning (Kuntz, 2008).

information systems into traditional pedagogy. Blandy is particularly interested in how the Creative Commons organization has facilitated a new culture of freedom online by providing a space for intellectual property to be freely shared, re-used, and remixed legally (p. 108). Blandy argues that models such as these have a great deal of value for art educators, and that through new media, the link between art education and democracy as a way of life can be made stronger (p. 109).

In recent years, some studies have suggested that increasing amount of students are spending more and more time online (Delacruz, 2009a, p. 13). Recent scientific and technological developments have led to a globalization that has restructured the economic, cultural, political, and technological dimensions of life (p. 13). This restructuring has altered how previously marginalized or voiceless people are using Internet technology to gain democratic power. Delacruz (2009b) discusses teenagers' use of new and social media in their daily lives, characterizing an increasing number as tech-savvy, self-guided, "cyber-nomads", working across media and adopting distinct identities within each. Delacruz argues that these are skills students learn during their teen years, and practice freely and creatively on their own but not as much in schools. Making the case that students today are "global and connected", Delacruz presents an outline for art educators to follow built around the concept of educating for cultural citizenship, which depends on two moral capacities: to rationally pursue a sense of the good, and an effective sense of justice (p. 264). Through the avenues of online media and art, Delacruz argues that art educators can achieve these goals through engaging their students in public work, reciprocal approaches to teaching and learning, and helping students forge intercultural connections (p. 265).

2.5.2: High-tech teaching. In addition to applying new media concepts into art classrooms, many teachers have attempted to bring specific aspects of online visual culture and technology into their pedagogy. Burton (2010) is one of many art educators who have explored ways to import such aspects of online media into classroom activities through the use of online image galleries as a means to facilitate student discussion and displaying work. Burton notes that in traditional media environments, gallery space was limited, expensive, and exclusive. However, web-based galleries have solved many of the problems encountered in displaying student art, and Burton argues that the Internet has the potential to "project students' art to the entire world" (p. 47). In ways that old-fashioned art shows in school cafeterias might not be able to achieve, Burton makes the case that Internet based art galleries offer greater visibility to the public for art programs, can be updated and maintained more easily, and serve as a facilitator for class critiques and discussions (pp. 48-49).

Carpenter and Cifuentes (2011) also describe the use of an image gallery, *Seeing Culture*, in order to promote artistic conversation. This gallery was established in order to provide a space for their students to share interpretations of visual artifacts, read the responses of others, and to contribute to an on-going conversation about visual culture issues (p. 35). Through guided activities such as video creation, the graduate students enrolled in the authors' courses were given a tool for communicating with each other and receiving each other's work. By sharing diverse interpretations on popular imagery as well as their own, the authors argue that students were able to understand more fully the complexity of images they encountered (p. 37). The use of *Seeing Culture* in conjunction with a class gives it formal boundaries to adhere by, as well as directed activities to be completed. Carpenter and Ciefuentes argue for an understanding of how

art educators may use tools like image boards to investigate the socially constructed meanings of imagery with their students (p. 38).

Overby (2009) has explored the use of weblogs (blogs) as useful educational tools for sharing art and discussion, and has found that educational blogs often fit into a few categories. A tutor blog is one used by the instructor for reviews of content, supplementary materials, or managing the class. A learner blog is maintained by a student to post homework, responses, or other class work. Finally, a class blog functions more as a forum between students and teacher, where comments may be posted and conversations carried out (p. 19). By using a blog to facilitate a photography program, Overby reported its successes in creating a collaborative learning environment and subverting traditional notions of teacher as authoritarian (p. 22).

Colman (2004) has incorporated previously discussed "net art" content in the curriculum, asking students to reflect on what makes its form unique. An exploration about Internet art was carried out through an activity where students were asked to examine four works of Internet-based art, and respond to a series of questions about their personal feelings about art and whether these sites qualify as "real art". Students discussed how these examples of Internet art differed from standard webpages. Although some students had difficulty articulating the differences, some pointed to an extra-dimension, a feeling that there was "more", or that it made them "think" (Colman, 2004, p. 68). Discussions like these, Colman argues, could lead students to discover ways art objects can take shape in a variety of forms, and that works of art often reside in complicated gray areas between various types of texts (p. 68).

In another study, Castro (2009) explores online implications for Wilson's third-space pedagogy through the creation of a de-formalized photography club that met and critiqued each other's work online. As a result of this experience, Castro argues that students' informal

relationship to new technologies like online image galleries and weblogs are best paired with some type of pedagogical organization. With the semi-anonymous[4] protection of user pseudonyms, a space was created in which traditional pedagogical boundaries of teacher and student, adult and child, began to take on less of an established role (pp. 15-16). Through text discussions and visual responses to each other's work, the community took turns participating in the roles of image consumers, critics, producers, and even teachers. Castro compares the online space of the photography club to Wilson's third pedagogical space, existing "between schooling and not schooling" and referencing the familiar while evoking new experiences (p. 84). Through this study, Castro investigates the concepts of identity performance and how hierarchical concepts of as "knower" and "learner" are subverted in spaces that are stripped of age and other identifiers (p. 54).

2.6: Tensions in Visual Culture Art Education

Although the previous literature indicates some amount of success in adapting online learning technologies and content into the art room, art educators still face notable challenges in these regards. These points of resistance may arise from various sources, but all signify real tensions between students' online visual culture and what is taught to them in schools. To introduce where some of these tensions come from, I will discuss the subjects of swarm intelligence, transgressive content, and issues surrounding the technology itself.

2.6.1: Learning to swarm. One challenge facing art educators concerned with online social media is derived from the very behaviors that occur across these online channels. A recent body of literature focused on understanding "swarm intelligence" suggests that the subject of

[4] Castro acknowledges that because the web exercise involved profiles and conversing, and the participants all attended the same school, many were able to make inferences, even if they were false, about who each participants really were (p. 54).

collective intelligence may be more complicated than initially thought. In an effort to explain aspects of human social behavior, theorists have turned to studying swarms of ants, bees, and other animals as a model for human behaviors. The logic of this model assumes that although, for example, an ant is one very small individual entity with limited cognitive abilities, a whole colony of ants is capable of remarkable feats such as building a nest, locating food, and sustaining their community. These simple tasks carried out by ants are not dictated by some central authority or queen, but rather are determined by the worker ants' local interactions between each other. Miller (2007) explains the mechanics of swarm intelligence as "simple creatures following simple rules", where each participant acts on local information. In a swarm, no ant knows the whole picture (p. 2). Using "ant algorithms", a swarm model has been applied to help solve practical issues in a variety of fields. Swarm intelligence models have been used to help Google Maps find the quickest routes, in developing robotics, and in creating new types of Internet search engines (Bernstein, 2013, p. 1). Almost as terrifying as it sounds, new developments in "swarm robotics" have allowed specially designed robots to cooperate like ants to move objects too heavy for only one to move on its own (Dorigo & Birratari, 2007). According to some swarm theorists (Kennedy & Eberhart, 2001) swarm intelligence implies first and foremost that the mind is social, as opposed to isolated and internal. Kennedy and Eberhart argue that human intelligence results from social interaction, and that culture and cognition are inseparable consequences of sociality (p. xxi). These understandings help to explain the way information also spreads online between users. In the case of memes, popular videos, and other digital artifacts, the act of "sharing" with local acquaintances is how virality is initiated and sustained through social networks.

In terms of locusts, bees, ants, and other animals, a swarm can indeed have negative connotations that should be acknowledged. A swarm implies a group of agents that is overpowering, disordered, and potentially dangerous. Keen (2007) might compare these transgressive qualities of the swarm to amateur media creators found through online channels. Keen (who, it should be noted, has built a career in the traditional software and media establishment) takes a critical view of the ways in which new participatory media, particularly YouTube, are shaping the learning experiences and media consuming habits of adolescents and the public in general. Here, Keen decries much of the content generated on blogs, YouTube, and other social networking platforms as "inane" and "absurd", and calls into question just how intelligent Web 2.0's hallmark collective intelligence actually is (p. 7-8). Keen characterizes the online world as a narcissistic all-about-me venue that is leading to the decay of the traditional institutions that used to shape our news, culture, and popular media. Keen offers an assessment of this type of social activity, asking, "what happens when egoism meets bad taste meets mob rule?" (p. 9).

The answer, according to Keen (2007), can be described through T.H. Huxley's theory regarding monkeys and typewriters: that, given enough time and enough monkeys on typewriters, one will eventually peck out at random the entire works of William Shakespeare. Keen extends this idea to online media creation, arguing that the result of users' production amounts to little more than "amateur monkeys" building a "digital forest of mediocrity" (pp. 2-3). This metaphor indeed provokes thought on the subject of the quality of information available online, and other issues born from the increasingly web-based lives of the "amateur" content producer, offering a counterpoint to the often rose-tinted testimonies of technologically eager educators and researchers. While some educators embrace the promise of new media for

educational purposes, Keen is afraid that the "monkeys are taking over" (p. 9). However alarmist this assessment may seem, parents, administrators, and other stakeholders in children's education still may have difficulty finding the value in bringing popular visual culture into the art class, especially instances of popular visual culture which may be subversive or controversial.

To illustrate the potentially negative consequences of "swarm intelligence", one could point to the recent events that unfolded following the Boston Marathon bombing. The first report of the attack was not reported by any traditional news outlet, but rather in a succinct message from a Twitter user, just seconds after the blast. "Uhh explosions in Boston", the tweet read. Faced with a tragedy, online social networking almost instinctively became a tether between those at the scene and those on the outside trying to gain information. There is also little doubt that in the moments after the explosions, social media tools were also helping bring concerned friends and family of those on the scene back in contact. However, social media's engagement took a darker turn throughout the week as the suspects remained unidentified. Through online forums like Reddit and 4chan, a social media witch-hunt began to take place for the bombers, which resulted in the misidentification of a number of innocent parties (Adams, 2013). Some of these bystanders were tackled, detained, and even had their pictures printed on the front page of mainstream newspapers. One of these parties included a missing Brown University student, whose family agonized as their son's name was spread online as a possible suspect (Knickerbocker, 2013). In this type of situation, swarm intelligence spread a lot of wrong information very quickly, and put innocent people in real danger. It seems clear that with the advantages of this type of social networking come major disadvantages in the form of disinformation, cyber-bullying, and other digital wrongs that aren't easily corrected.

2.6.2: Colonizing transgressive territory. Duncum (2009) describes another challenge facing art educators, particularly how art educators should be prepared to deal with the transgressive territory in their classrooms. He explains that popular culture is a concept that contains somewhat paradoxical elements of conformity and subversion, in that it reinforces dominant social values while offering the pleasures of reacting to and subverting the social order (p. 233). Duncum argues that the often irrational, transgressive nature of popular culture is at odds with traditional notions of rationality found within formal education, and thus proves difficult to integrate into school curricula (p. 232). Duncum also argues that contemporary youth culture becomes one of transgression and resistance to adult demands. Children's self-initiated drawings often take an ironic or sarcastic stance toward media representations through the use of the "inane, risqué, scatological, and politically-incorrect" (pp. 234-235). These same transgressive characteristics have found their way into children's online media creations on websites such as Facebook and YouTube. Duncum sees a danger in teachers undermining the transgressive nature of popular culture in their classrooms, particularly through prescribed outcomes aimed at cultivating a critical consciousness in their students. Often, teachers dealing with popular culture will use a particular site to cultivate a politically correct response from their students, barring any possibility for an alternative discourse, presumably because of the disconnect between normal, structured classroom practices and the transgressive nature of popular culture (p. 236). Duncum argues that educators should instead recognize popular culture as something that is inherently fun and pleasurable for students, but that purely critical investigations in classrooms may do more harm than good (p. 234). Duncum recommends that the appropriate way to deal with popular culture in the art classroom is to not only teach about it but *through* it, advocating for a playful pedagogy that makes room for subversion with parody

and other forms of response. Duncum argues that critiquing visual culture should necessarily involve acknowledging its pleasures, and leave appropriate space for the "fun" of the subject matter (p. 241). Educators employing playful pedagogy, however, must also be prepared to deal responsibly with the ethical issues that may arise when transgression goes too far outside the boundaries of the classroom (p. 241).

2.6.3: Mind the technology gap. Although online social media has become commonplace for many students and teachers alike, adapting these issues into classroom practice has not been an easy task. Buffington (2007) attempts to dissect the popular wisdom that dictates access to the Internet in schools naturally leads to heightened critical thinking by students (p. 20). Buffington finds that in many cases, educators will use an approach to technology that encourages students to verify information they find on the Internet under the goal of critical thinking. However, this adheres to older notions of critical thinking that focus on determining the accuracy of a statement, instead of reflecting on the reasons for contradictory information on the World Wide Web (p. 20). In a more contemporary approach, teachers might encourage critical thinking by allowing students to read varying interpretations of artworks, comparing "official" sources such as museum websites with informal sources of discussion surrounding the work. Other teachers have employed inquiry-oriented "WebQuest" techniques as a way to use the Internet as a source of information as well as a tool for processing, evaluating, and synthesizing this information for their own conclusions (p. 21). Buffington argues that perhaps one of the strengths of Web-supplemented pedagogy is the tendency for students' ideas and questions to lead to other ideas and questions as opposed to solid answers (p. 22). However, Buffington argues that unguided Web activity could be counter-productive and superficial, and thus requires

some amount of guidance from a teacher, such as pre-selecting lists of sites for use in a classroom activity (p. 22).

A final point of resistance that complicates the use of online visual culture in art classrooms is the pace of technology itself. An educator must remain diligent and committed to stay up to date when it comes to knowing and utilizing the latest technology or engaging subject matter. Thomas (2011) notes that the concept of the "digital native" is by now at least a decade old, and makes the observation that formal educational systems still make little use of social media and Internet-based instructional tools in approaching pedagogy (p. 2). Among the specific criticisms of educators is the high speed at which educational technologies move in and out of fashion, time constraints for training teachers on new technology, and the availability of support to maintain and update resources (p. 2). These realties make it difficult for educators to stay current and address these issues in a meaningful way inside classrooms.

Educators are also fighting against time in order to keep up with what types of media their students are actually using currently. In the literature provided in this chapter, much of the research done on students' visual culture production and consumption revolved the sites of Facebook, YouTube, and other platforms that came to prominence in the past decade. However, these investigations may have become slightly outdated, as a recent survey of online teenagers between the ages of 13 and 18 indicated that 61% of teens chose Tumblr as their preferred platform, as well as indentified a decline in the use of now mainstream platforms like Facebook and Twitter among teens (Glenn, 2013). Tumblr, an image-based blogging site, is argued to have gained popualarity due to its increased focus on anonymity and customizability. Instagram, a retro-styled photo sharing app also joined the list, as did Snapchat, an image sharing chat program which self-destructs pictures sent by the user after 10 seconds (perfect for sensitive

material, and inspiring "sexting" panics in parents). While these platforms all serve different purposes, many of them signify a shift towards a more ephemeral relationship with the Internet that is less public and more peer-based.

Alexenberg (2008) argues that similar shifts have led us to a "post-digital age", and thus attitudes about the relationship between art, technology, science and other disciplines are complicated even further. Alexenberg argues that a current shift in paradigms will result in a "Conceptual Age", in which the "left hemisphere" oriented skills of the Industrial and Information Ages and are no longer enough for success in the arts and sciences (pp. 231-232). Instead, the Conceptual Age would require art-makers (and others in all areas of human endeavor) to combine high-tech capabilities with high concept and high touch[5] creativity. The result of such a pairing would be characterized by an integration of technological ability, conceptual qualities such as narrative construction, explorations of artistic and emotional beauty, novel invention, and high touch abilities to empathize with others, interact socially, and to reach beyond "quotidian" everyday experience in search of new meaning and understanding (p. 232).

In this dawning Conceptual Age, Alexenberg argues that the boundaries between the "digital" and real worlds are also challenged. It is argued that the transition from the Information Age is being marked by a distinct shift from "cabled, box-bound" systems of interfacing with technology to one that is increasingly wireless, mobile, and even biologically integrated (p. 232). Alexenberg connects this trend to emerging examples of "moist-media" in which dry pixels and

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[5] *High touch* is a term coined by Naisbitt (1982) that describes actions taken to soften or humanize the often sterile and automated experiences of dealing with high technology. Often juxtaposed with the term *high tech,* high touch implies personal, face-to-face interaction with other humans as opposed to interfacing with computer software or other technology. These measures are, for example, often used in sensitive places like hospitals, where the clinical side of medical care is counterbalanced with high touch services like counseling and hospice care (pp. 5-9).

silicon operate in symbiosis with "wet biomolecules" (p. 232). As a result, Conceptual Age relationships to technology in art will be largely concerned with the concept of cybersomatic interactivity, facilitating a direct relationship between digital systems and biological bodies, and the ability to create feedback loops between cyberspace and real space (pp. 238-239). In the years to come, it is clear that art educators will continue to face the challenge of constantly changing boundaries between art, technology, and bodily, lived experience. The task of being prepared to cover these issues in educational settings will likely prove a daunting task to educators already struggling to keep pace.

2.7: Conclusion

In this chapter, I have provided a body of literature that addresses what is currently known regarding the issues of the third space, online visual culture and the implications for art education. While these concepts have been investigated separately in much detail, the point of their convergence remains a place for inquiry that has yet to be fully explored.

On the topic of informal learning, it has been demonstrated that educators have long seen the informal learning behaviors of youth as an important site for understanding how students learn in and outside of schools. By extending Deweyan principles of learning through everyday experience, once mundane, overlooked encounters with visual artifacts may now be considered important places to find significant types of learning. The research surrounding informal learning in various fields has suggested that the behaviors of students learning informally, on their own, differ greatly from what behaviors are typically expected of students in schools. In terms of students' online creative production, I have discussed how teenagers behave as prosumers, taking in and responding to the unique visual culture they experience online through images, video, animation, and other forms of new media. These artifacts demonstrate the youths' competencies

in new media literacies, and signify that creative production on the Internet can take many forms. I have also discussed the ways in which art educators have attempted to bring students' familiarity with online visual culture into the classroom, as well as some of the challenges that are met by educators who attempt to make the informal and formal spheres of learning meet.

I believe there is much left to explore on this subject. Over the course of the past decade, the landscape of teens' online environment has changed drastically, and art educators are struggling to keep up to date. With younger generations making an exodus from now-mainstream social media outlets, it is increasingly important to investigate what constitutes the online visual culture of today's teenagers, and how third space pedagogy can appeal to this world. By facilitating this unique kind of learning environment and investigating it and its participants with the methods of qualitative case study, I hope to have been able to forge new understandings of how today's teenagers spend their time online, how their own art-making is informed by their interactions with online visual culture, and how teachers can respond to these issues in new ways. Throughout this literature review, I have outlined what gaps in research still exist for investigation. As a result, this case study provides a fine-grained and contemporary examination of the issues defined in my research questions. With this study, it is possible to understand more fully what tensions art education can expect to encounter today and in the years to come.

Chapter 3: Methodology

3.1: Introduction

In order to study the spontaneous, informal nature of learning in the third space, I created and facilitated a Digital Arts Workshop, which was free to any area high school student with an interest in online visual culture or the digital arts. This workshop, which was held in a computer lab at the University Media Commons, met every Saturday afternoon for a 9-week period, for 2 hours each session. During these sessions, my goal was to introduce some basic "tips and tricks" for novices who were eager to learn from me, but I also hoped to also allow time for self-directed projects and activities to take place. The chaotic, unstructured nature of such an environment lent itself well to the methods of qualitative case study, which I employed to investigate my research questions. While teachers and administrators in school systems often turn to quantitative forms of assessment (letter grade/grade point systems, standardized tests, and so on) to represent what their students' are learning, the self-directed learning activities of students will appreciate a qualitative approach. The models of informal online art-learning that I have discussed seem to naturally be at odds with methods of quantitative research and measurement, taking on a more spontaneous and rhizomatic (as opposed to prescribed and top-down) structure. The radical learning processes modeled in the DigArts workshop would not have been best measured by numbers, but rather by the qualities of experience that pervaded them, and thus a qualitative study of this case had certain advantages. In order to understand how students are using technology and other resources to direct their own learning about the arts, it was important to observe, analyze, and understand the qualitative nature of such experiences firsthand, and to do so I employed the methods outlined in this chapter during my interactions with participants.

3.2: Qualitative case study research.

Bogdan and Bicklen (2003) describe five important features evident in qualitative forms of research. A qualitative case study should be naturalistic, contain descriptive data, be concerned with process, analyze data inductively, and concern itself with "meaning" (pp. 5-7). Additionally, some may consider qualitative research as a form of dialogue or interplay between researchers and their subjects, a stark contrast from positivistic modes of research (p. 7). Plummer (1983) describes the openness of qualitative research as one of its hallmark qualities, reminding "the scientific sociologies (and the rest of us) that for all his neat abstractions, concrete human beings may not neatly bend before them" (p. 7). In this way, qualitative research methods allow knowledge to be constructed outside of traditional scientific, quantitative approaches. It also recognizes that human activity and cultural production/interaction can only weakly be quantified. Qualitative inquiry appeals to the affective, emotional, and aesthetic dimensions of human nature.

The goal of qualitative case study is not to make broad generalizations, but rather to understand a specific case more fully. Stake (1995) states:

> The real business of case study is in particularization, not generalization. We take a particular case and come to know it well, not primarily how it is different from others but what it is, what it does. There is emphasis on uniqueness, and that implies knowledge of others that the case is different from, but the first emphasis is on understanding the case itself. (p. 8)

The challenge of the qualitative researcher is thus to interpret the case as it is presented, less to seek out a hypothesis to confirm.

To carry out my investigation, I employed the qualitative methodology of case study research. One of the major strengths of case study based research is in its ability to understand a specific case, not to create or "optimize production of generalizations" about the larger field of study outside of the case (Stake, 1995, p. 8). Stake explains that we look to cases for "both their uniqueness and commonality. We seek to understand them. We would like to hear their stories (p. 1)". Simply put:

> …the real business of case study is particularization, not generalization. We take a particular case and come to know it well, not primarily as how it is different from others but what it is, what it does. There is emphasis on uniqueness, and that implies knowledge of others that the case is different from, but the first emphasis is on understanding the case itself. (p. 8)

Emphasizing uniqueness, this case study aimed to help in understanding how a specific selection of young people are teaching themselves to learn, but also to acknowledge the natural limits of self-directed online learning through visual culture. While I do believe the actions of these learners have some import to the larger picture, I primarily desired to understand the uniqueness of the DigArts third space, as well as the specific experiences of a selection of its participants.

As an instrumental case study, the investigation of the dominant research question was the primary goal, although the specific issues evolved over time. The issues of a case "draw us toward observing, even teasing out, the problems of the case, the conflictual outpourings, the complex backgrounds of human concern" (Stake, 1995, p. 17). In this way, it was not my goal to simply observe and report what these learners were doing in the workshop, but instead I aimed to problematize what I observed with critical lines of questioning, analysis, and interpretation. While the issues I investigated may be described through the initial research questions posed in

Chapter 1, it was inevitable that these issue questions and my interpretation of their part in the case would, over the course of the workshop, "emerge, grow, and die" (p. 20). For this reason, my research investigated two types of issues: *etic* and *emic.* The etic issues, or "the researcher's issues", refer to those pre-determined research questions. Having used these as a springboard, I was able to probe for emic issues, or those that are the issues of the participants within the case. The emic issues of my case emerged naturally, as "issues from the inside", as the DigArts participants and I cooperated in the third space (p. 20). Connecting these two varied types of issues had led to a clear, holistic picture of the case from differing perspectives.

In order to expand the scope of my understanding of the phenomenon of online visual culture in the creative lives of teenagers, I employed a qualitative case study approach that takes into account the uniqueness and similarities of a number of smaller cases, exploring the prevailing issues at hand. As a result, careful consideration was taken in selecting participants that would illustrate the range of settings or subjects to which my observations may be made applicable (Bogdan & Bicklen, 2003, p. 63). When it was necessary to investigate relevant events that had occurred before the workshop, I utilized a historical case study approach that appealed to interviews, archival material, and other documentation to clarify the case. In cases that occurred contemporaneously with the workshop, I utilized observational case study methods that allowed me to describe, analyze, and interpret the events as they unfolded. In all of these processes, I used the central methods of case study research: observation, interview, and document analysis (Bogden & Biklen, 2003; Glesne & Peshkin, 1992; Stake, 1995) in order to contribute to the *quintain* of my study, that is, the overarching research issue related to all of the cases in question (Stake, 2006, p. 6). For this study, the quintain focused on the tensions between teenagers' relationship to online visual culture and their various learning environments. To

reiterate, my central research questions asked: What tensions exist in a third pedagogical space that is focused on online visual culture?

In order to investigate this central research issue, I had developed the questions outlined in Chapter 1 to further refine my approach and investigate specific aspects participants' learning behaviors and environments. As a result, this study will also ask:

1. What are teenagers learning through their production and consumption of online visual culture?
2. How are hybrid forms of learning in the third space shaped by students' formal and informal learning experiences?
3. What understandings from the third space challenge existing models for understanding formal and informal art learning?

Although certain aspects of informal learning were often out of reach of the researcher for direct observation, special care was given in the research methods selected to provide a clear and detailed picture of the case as a whole, and from the perspective of its' actors. The methods outlined in the following section will explain further the recruitment, data collection, and analysis methods I have devised to accomplish these goals.

3.3: Methods

3.3.1: Participant recruitment. The first step in devising my case study was to consider the role of participant selection. Because the challenge of my study was to find teenagers who are invested in various forms of online visual culture, I cast a wide net in order to find participants who would offer the most breadth to the case. I began participant recruitment by making connections with local art teachers and our department's Saturday Art School program through a flier that introduced myself and announced the Digital Arts Workshop's open

enrollment. This flier articulated the goals of the program, both for participants and for my own research purposes. The workshop was free of cost to any area high school student who held an interest in the digital arts and who wanted to learn more in an open-ended environment. In exchange for their participation, I offered my expertise on the subjects of graphic design, animation, and other forms of new media, and a willingness to help them accomplish their own goals. This flier also directed interested students and parents to a website where they could take a preliminary survey about their interests and what they would like to learn during the workshop. The purpose of this survey was primarily to identify what basic types of digital art and visual culture participants were engaged with online, and to gauge levels of abilities and familiarity with various forms. Over the course of the three months leading up to the workshop's first session, 14 students/parents had contacted me wishing to enroll in the program, and 12 participants had officially enrolled by providing signed informed consent letters on the first day, although the weekly attendance of these participants varied.

Once the workshop was in session, I began to talk informally with each participant in order to get a clearer picture of their engagement with online visual culture. During these early conversations with each participant, I attempted to get initial information about the following questions to serve my research and guide my design of the DigArts workshop:

1. Do you have access to the Internet at home?
2. What is your most often visited website?
3. How much time do you spend online on an average day?
4. Do you create "art" or other media (videos, web sites, images, etc.) outside of school?
5. Do you ever use the Internet to learn about something unrelated to your school subjects?
6. Do you play any video games? If so, which ones?

7. Do you participate in any after-school art programs?
8. How do you typically kill time online?

Using student responses to these questions as a starting point, I was able to anticipate the interests of prospective participants.

3.3.2: Data collection. Once the workshop began, I carried out a variety of methods for data collection. Stake (1995) states that one of the key characteristics of qualitative case study research is its "ordinary way of getting acquainted with things" (p. 49). Therefore, I attempted to gather data from ordinary sources and common interactions that occurred within the workshop. The goal of this study was to become naturally acquainted with the participants' experiences with online visual culture and to examine the utility of third space pedagogy when dealing with this subject matter. The act of "getting acquainted" with the case was also achieved by a number of preliminary measures that had been taken before data collection formally occurred. Before visiting the site, I had anticipated key problems and events and formed an initial plan of action. This plan included details on how to best capture interactions and discussions via audio recording, how to capture images of student work, and outlines for preliminary interviewing.

These measures ensured that I was well prepared for data collection by the time fieldwork began during the workshop's first session. Bogdan and Biklen (2003) describe "fieldwork" as:

> … being out in the subjects' world - not as a person who pauses while passing by, but as a person who has come for a visit; not as a person who knows everything, but as a person who has come to learn; not as a person who wants to be like them, but as a person who wants to know what it is like to be them. (p. 73)

As a result, it was necessary to make good use of the relatively small amount of time allotted with participants in order to gain a clearer picture of their experiences within the group and relate

it to their worlds outside. While the length of my data collection was limited to the course of a 9-week period, typically during the 2-hour sessions of the DigArts workshop, I also made efforts to schedule intermittent discussions and follow ups with participants and parents whenever possible or when events of the workshop required more investigation. These interactions allowed for more one-on-one conversations about pertinent issues that arose during our sessions, as well as discussions of what they have been doing at home away from my observation. At other times, I attempted to facilitate other "third space" opportunities for art making and learning to take place, interacting on participant's DeviantArt websites, meeting them in an online game, and other similar situations. Using the workshop's third-space as a site for study allowed me to become more fully immersed in the case and developed a clearer picture of what types of guidance and instruction (by teachers or peers) these teenagers' desire in their learning, and it also signaled what kinds of intervention were not ideal. During this time, it was necessary to employ a playful, open-ended approach with these participants that encouraged a de-formalized site for learning.

Due to the large volume of data that was collected and created during this stage of the study, a proper data storage system was crucial. My system included a personal log that contains a calendar, telephone numbers, observations notes, and expenses pertinent to the DigArts workshop. This log was composed and edited digitally on my personal computer and was stored on a secure external hard drive between sessions. For organizing a data system, Stake (1995) recommends that a code key or list explaining all present material should be present, which was also included on the hard drive (p. 55). Because much of my data existed digitally, and had been recorded in the form of images, video, audio, or computer screen-captures, the data stored on this hard drive was kept in a locked filing cabinet when it was not in use. All artifacts and data on this hard-drive were catalogued and described in the code-key which was updated immediately

after each period of data collection. In order to further organize my data collection, I prepared in advance field note templates for all activities that allowed for quick notation of qualitative, quantitative, and narrative information. These templates also provided space for commentary on the development of any of the primary issues.

It was also important to take care in selecting data sources and contexts for study. As part of a researcher's data collection plan, the selection of data sources should be treated carefully and not left up to chance. Stake (1995) states that a researcher should have "a connoiseur's appetite for the best persons, places, and occasions", meaning those things that best help to understand the case (p. 56). For case study research, these methods include interviews, observations, conversations, and artifact examination. If, as Stake puts it, the focus of the researcher should be on "experience", then the methods of data collection will largely be found in detailed descriptions of experiences, events, and moments of interaction between the participant and researcher (p. 49). The problems presented to case study researchers, particularly in my case, were how to best document such fleeting moments, and how to capture their essence for later investigation. Through careful preparations for interviews, observations, conversations, and artifact examinations, capturing the fleeting moments of the workshop for later analysis became possible.

Observation was perhaps the most common of methods for data collection in this case study. Stake (1995) explains that the choice of where and what to observe should be informed by the issues at hand. He explains that if the goal is to understand opposition to classroom curriculum, a researcher is likely to get the best understanding of the case outside of the classroom where opposition is more likely to be expressed (p. 60). By extension, my study of the tensions that exist between formal and informal learning spaces will necessarily need to focus on

the spaces outside of school where conflict most likely is expressed by participants. Ultimately, my role as a case study researcher during data collection was to create a good record of events for further analysis and later reporting, and to "let the occasion tell its story, the situation, the problem, resolution, or irresolution of the problem" (p. 62). These larger stories developed during the observation, but also evolved during later write-ups of the observation after each session, while it was still fresh in my mind (p. 62). I also followed protocols set forth by Bogdan and Biklen (2003), who argue that early observations should be relatively short, around an hour or less, in order to become acquainted with the process. They also argue that no session should be longer than your memory can manage, or cut short time used for taking post-session notes (p. 93). Ultimately, the goal of my observation was to discover moments during this short amount of time that revealed "the unique complexity of the case" (Stake, 1995, p. 63).

Observation in this study took many different forms, and they were informed and shaped by the issues at hand and the unique space in which they took place. In the case of my DigArts research, observation methods were fairly conventional. After I had done my daily introductions at the beginning of each session, I devoted some time sitting and observing the session as it unfolded without much intervention. Other blocks of time were allotted to circulating to help or answer questions when needed, and to initiate discussions and semi-structured interviews with students about relevant subjects and issues. Maintaining my role as an observer kept me from interrupting important events or upsetting the natural order of the third space too much. I had used a digital audio recorder on my iPad to capture specific important events as they unfolded, and I notated in the my field notes any pertinent observations, time codes, and other shorthand data for later reflection.

As mentioned above, the act of detached observation was challenged in situations in which participation between researcher and subject was valued. My goal as a case study researcher was to learn from others, and thus it became necessary to engage closely with participants during certain learning moments. Take, for example, the case of a teenager who enjoyed playing the online game *Roblox*. In order to become more fully immersed in the case and understand this participants' engagement with this game, it became necessary and valuable to meet them in this virtual world, and to play along as they taught the researcher the nuances of the game and how they interacted within it. Through this first-hand experience with the game, I was able to gain valuable understandings about the participants' behaviors within it. In cases such as this, shifting attention from passive observation to more active and cooperative play offered an opportunity to experience the case more holistically and uncover meaningful data. Whenever possible, opportunities for immersion such as this were pursued for data collection. However, activities like these that occur in digital spaces were still treated as other forms of observation, and they were recorded and notated through devices like screen-capture software for later reflection and analysis.

Another crucial tool in my data collection was the semi-structured interviewing of participants. Bogdan and Biklen (2003) simplify the concept, explaining it as "only a purposeful conversation, usually between two people but sometimes involving more" (p. 95). This conversation is directed by one person to retrieve information from the other, and takes on a fluid, organic nature. One of the most relevant reasons for using interviews in my data collection was to gather descriptive data in the subjects' own words in order to gain a clear picture of the subjects' perspective of the topic at hand (p. 95). Stake (1995) argues that although a good interview should appear relaxed and natural, it should in fact be structured beforehand (p. 64). I

followed Bodgan and Biklen's (2003) recommendations, and I started interviews with small talk, and re-informed the subject of my purpose, and allowing the conversation to flow naturally. However, I also kept an eye out for issues to probe with further questions and discussion (pp. 95-96). I had also been mindful to keep the interview subject at ease and able to talk freely about their points of view. In addition, "yes or no" questions were avoided in favor of questions that require more elaboration (p. 97). During my interviewing, an ideal response to an interview question was one that enticed a description of an episode, a linkage, or an explanation (Stake, 1995, p. 65). While this data was in part recorded to capture direct quotes from participants, the key of the interview was not only to capture the person's own words, but rather to capture what they mean. I followed Stake's recommendations for informal talking and relatively light note taking during interviews, and I also exercised repeated member checks to reach a true understanding of participants' thoughts on the topic at hand (p. 66**).**

My own interviewing in this study was informed by these criteria, and I embraced an informal, conversational approach. When initiating an interview with a participant, I often began by simply greeting them and inquiring about how they have been doing since we have last talked. After this brief introduction, I would attempt to steer the conversation toward their most recent engagements with online visual culture, for example, asking if they had seen anything interesting online or if they had anything new that they had been working on. After the first few weeks, most participants and I had developed a rapport and familiarity, which made it possible for me to delve more deeply into their personal interests and experiences. The purpose of these conversations was to uncover what types of media participants were engaged with, and particularly what they found fun, compelling, or interesting about the site in question. These

conversations were often guided towards a conversation regarding the participants' own creative production, as well as their thoughts about their experiences in and outside of art class.

I also performed data collection through the review of relevant documents and artifacts. In the case of my participants, much of the artistic work that they produced was created on their own time outside of the session, largely in the absence of my observation. Stake (1995) posits that documents and artifacts are often adequate substitutes for records of activity that a researcher is not capable of observing (p. 68). Stake also explains that much like other forms of data collection, the review of documents and artifacts should be developed in advance but also open to unexpected developments to arise (p. 68). The artifacts that I had collected to understand the mini-cases of my participants included their own artwork in various forms (still pictures, physical objects, video), but also led to some investigations of documents linked to their school-based art curriculum, classroom work and other artifacts of their learning or experience with online visual culture.

Because the review of documents and artifacts allows a researcher to gain a vicarious picture of events that are not easily observable, this approach was necessary to understand more fully the types of online visual culture that these students are producing at home or in other situations out of reach of first-hand observation. In these cases, it was crucial to have on hand a set of exhibit questions to ask participants when discussing their work and other artifacts. In another example, one student had presented a set of digital photographs that they had shared on Facebook. Using these images as a starting point, I began by asking the student simply to describe the work in question (often simply, "What is this?"). After this initial introduction, I drew upon the pre-prepared list of the following questions in order to reach a greater understanding of the implications underlying this artwork:

1. Is there a story behind this picture or set?
2. Which of the group do you like best and why?
3. What themes do you think these photos have in common?
4. What is it about this subject that drew you to it?
5. Can you tell me more about how you decided to frame your subject? (or other compositional questions)
6. That is an interesting technique that you used. Where did you learn about that?
7. Do you think you'll take more pictures like this?
8. Have you shown this to any of your friends or family? What did they say?
9. Was there anything frustrating that you encountered while taking these photos?

While our interactions actually flowed more freely as a conversation, having these guides in place allowed me to address and coax out more information about the issues at hand without taking a critical stance on the artwork itself. Often, each of these questions led to more natural sub-questions, which were then used to pursue specific issues in more detail when my judgment indicated that I had found a point of conflict or issue worth exploring.

The process of collecting each of these various forms of data followed an organic path. As issues arose, I searched for ways to pursue pressing ideas, following the course of events as they unfolded, but I always referred back to the guides set out carefully beforehand.

3.3.3: Analysis. Stake (1995) argues that there is no particular moment during a case study when analysis begins. Instead, analysis is the act of "giving meaning to first impressions, as well as to final compilations. Analysis essentially means taking something apart. We take our impressions, our observations, apart" (p. 71). This process takes place often alongside or punctuating data collection periods, not separate from the larger goal to make sense of the case

(p. 72). When analyzing data, I relied on both categorical aggregation as well as direct interpretation methods. In some situations, I was able to reach new meaning by pulling apart and reassembling a single instance for meaning. In others, it was useful to investigate the aggregation of a number of instances until something could be generalized about them (p. 74). However, Stake argues that in case study research, the primary goal is to understand the case and therefore stick mostly to direct interpretation of events, asking "What did that mean?" (pp. 77-78). Stake also warns that if a researcher becomes too invested in categorical data, it becomes easy to miss out on its various involvements and contexts (p. 77). In my own analysis methods, I gave primary importance to direct interpretation of events within each case in hopes of understanding each case as a unique occurrence, but also allowed room for some minor generalizations to be made of the data for the field of Art Education.

When confronted with data for the first time, Glesne and Peshkin (1992) recommend consistent reflection on the data, organization, developing analytic files, applying rudimentary coding schemes, and writing periodic reports in order to manage the information being taken in (p. 128). Through the use of memo writing or log taking, Glesne and Peshkin argue that thoughts may be developed as they occur and "no matter how preliminary or in what form, you begin the analysis process" (p. 128). In the analysis of my data, I turned to pre-prepared analytic files such as coding charts that could be applied to my data and used to identify instances in which the issues of my research questions was suggested through transcribed dialogue, interviews, or other forms of information collected during my study.

Stake (1995) states that almost certainly, there will be more data collected than can ever be analyzed. When more important situations or texts arise, it is often important to spend more time on its analysis. During this process, proper analysis would involve repeatedly reviewing the

record of the event, reflecting, triangulating with other data sources, and being critical of the researcher's own impressions and conclusion (p. 78). A useful step in analyzing the wealth of data gathered during my study was to seek out patterns and correspondences that arose from this data. This was achieved through the careful coding of notes or transcripts and was framed by my own issues questions (pp. 78-81). Bogdan and Biklen (2003) explain that the creation of coding categories is a crucial step in the analysis of case study data. These coding categories are created by combing through data for regularities and patterns, and translated into simple words or phrases. These coding categories are then used for sorting through and linking related bits of the researcher's descriptive data (p. 161). These related bits are thought of as code families, and might help make sense of complicated issues surrounding the setting/context, situation, subjects' perspectives, activities, and specific events, among others (pp. 163-165). When combing through the data in order to identify my own patterns, I referred to my primary interests of understanding my participants' creation and consumption of online visual culture, and I also paid attention to events and interactions that may be described as transgressive, subversive, or otherwise counter to formal learning. This process was carried out promptly and regularly on newly gathered data, and it was repeated on older data that required another look.

When dealing with overwhelming amounts of data, my analysis was occasionally made easier through the process of data display. Devices such as matrices, graphs, flow charts and other visual representations are all valid ways to assist in making meaning of data, as well as signaling the researcher where gaps in information may exist (Glesne & Peshkin, 1992, p. 137). When dealing with my data, I sometimes chose to employ techniques such as these, but I also attempted to develop new ways to visualize the connections and relationships between data sets and artifacts from my research. This was achieved by translating quantitative data into visual

form, but also through mapping and linking code categories to each other and distinguishing their differences. Using transcribed documents of interviews, I employed a word cloud program to create a hierarchical, size-based map of words as they appear by frequency. This tool helped in my understanding of what keywords and concepts seemed to re-emerge within and across cases, which guided my analysis even further. I also employed other forms of charts, graphs, and visualizations in order to identify common themes and potential code families when analyzing data.

My study also made use of naturalistic generalization in order to tell the story of the case as it occured. Stake (1995) describes this idea as "conclusions arrived at through personal engagement in life's affairs or by vicarious experience so well constructed that the person feels as if it happened to themselves" (p. 85). These differ from the explicated generalizations people often learn from others like authors, teachers and authorities. Stake explains that this is valuable to case study analysis, as "readers often are more familiar with the cases than we researchers are. They can add their own parts of the story" (p. 86). As a result, I described and analyzed what I had observed in vivid detail, but I also left room and opportunities for the readers to fill in the gaps and infer their own understandings of the case from the data. My report did so by incorporating blocks of raw data for the reader to digest and also by providing narrative accounts of classroom and interpersonal events that took place during the workshop.

Another important step in the analysis of my data was triangulation. Stake (1995) states that triangulation is a disciplined way of testing the validity of the interpretations we make as researchers (p. 107). Because triangulation consumed a great deal of time, I focused primarily on triangulating the most important or relevant data and claims. Put simply by Stake, "if it is central to making the case, then we want to be sure we have it right" (p. 112). Certain triangulation

protocols may be called upon to serve specific purposes in my analysis. Data source triangulation may be used in order to triangulate on an issue or problem, when a researcher "looks to see if the phenomenon remains the same at other times, in other spaces, or as people interact differently" (p. 112). Investigator triangulation calls upon other researchers to examine the same phenomenon or scene. Triangulation may also occur theoretically, when reviewed by others with alternate theoretical viewpoints. Another process of triangulation that had been used regularly in this study was methodological triangulation, through which I had attempted to investigate the phenomenon from a variety of methods of data (such as comparing an observation of an event with an interview about the same event) (pp. 112-114). For example, after I observed something happen during our "third-space" sessions that I felt indicated one of my central issues, I would often follow up on this issue by interviewing the relevant participants about this event, or by comparing my written observations to the hard data captured by the audio recorder.

Equally important in providing validity to my case study was the process of member checking. Stake (1995) recognizes that participants and actors in a case study are often capable of providing necessary viewpoints and interpretations. In this process, a participant or actor in the study is asked to review a rough draft that contains their own words or actions. Checking this material with the subject for accuracy and agreeability is encouraged by Stake as a valid way of improving a case study report (pp. 115-16). As a result, my summaries and descriptions were member checked regularly by those involved. In some cases, the teenage participants themselves were asked to reflect on how I represented their experience in the case, and they were given the opportunity to read my accounts and provide their feedback. In other cases, classroom teachers, parents, and others relevant parties were given the chance to offer their input on my understandings about their role in the learner's experience.

3.4: Theoretical Framework

Bogdan and Biklen (2003) note three contemporary ideological influences in qualitative theory: feminism, postmodernism, and critical theory. At the center of my interpretation and understanding of this case will be the framework of postmodern theory and its focus on symbolic interaction. Because my study is focused on contemporary issues surrounding new media and the ways in which teenagers consume and produce online, it will be valuable to understand the case through postmodern theory, which provides a place to begin deconstructing the fractured, rhizomatic online world of today. For this case study, a postmodern framework allowed for a deep investigation and interpretation of the issues at hand.

3.4.1: Postmodernism. In short, the term *postmodernism* often refers to the ideological position that we are living in a "post" modern world. Bogden and Biklen (2003) explain that the "post" in fact implies two meanings: the postmodern period is an actual historical time that differs from the modern era, and that it responds critically to the conditions of modernism (p. 20). At the heart of modernism are grand metanarratives of linear progress, rationality, and scientific enlightenment. Lyotard (1979/1984) describes postmodernism as a loss of faith in these modernist metanarratives, brought about for a number of reasons. With the advent of the nuclear age, growing wealth gaps between social classes, and environmental decay and destruction, once stable notions of progress have become de-stabilized and their integrity called into question (Bogden & Biklen, 2003, p. 20). Kent (2005) describes the "symptoms" of postmodernism in our society, specifically naming the attributes of pluralism, de-centered truths, and multiculturalism as central ideas to postmodern theory (p. 160). For this study, the postmodern framework offered the opportunity to explore new ways of inquiry.

New ways of knowing are also important in light of Foucault's (1975/1977) theory that power is bound to knowledge. Foucault assumes that bodies of knowledge are often thought to be objective and value-free in content, but are actually dominated by predisposed notions of cultural value (p. 91). For a qualitative researcher, it is important to acknowledge their own cultural values and understand how they inform their research processes as well as how they analyze and interpret the case before them. Because all that is experienced is subjective and understood through these sets of values, it is important for a researcher in the postmodern context to examine the power structures that influence their own ways of knowing.

Another key aspect of postmodern theory useful to a qualitative researcher is the notion of deconstruction. Deconstruction responds to the modernist notion that there is a single, true interpretation of an object and, by contrast, focuses on the multiple and contradictory elements of an object that may arise during its interpretation by diverse parties with different social and cultural backgrounds. Doing so, a person is led to the assumption that multiple perspectives are crucial in understanding the postmodern world (p. 104). For many postmodernists, the aim of deconstruction is focused on electronic media such as television and the Internet, and the primary interest is in discovering how they shape the personal, political, economic, aesthetic, psychological, and social facets of self (Taylor, 2004, p. 328). For my study, a skilled deconstruction of the artifacts and events encountered during investigation were necessary to come to a complete understanding of the case. My participants in particular were engaged in the production and consumption of popular media, and thus a deconstruction of these sites was also a necessary step. It is crucial in the postmodern environment to be able to understand the scope in which images are mediated and for what intended purposes. By critically investigating a site that arises during a case and subjecting it to deconstructive scrutiny, it became possible for me as a

researcher to come to a more rounded understanding of the case, and to consider various perspectives when interpreting key events and data. This deconstructive approach to qualitative data interpretation fittingly addresses the ideas of postmodern theory by appealing to the need for a discursive method of research.

Postmodernism is a relevant concept to qualitative research as it addresses how knowledge is created and understood socially. Bogdan and Biklen (2003), explain that "you can only know something from a certain position" (p. 20). Likewise, a qualitative researcher should be aware of their position but also intend to understand their case from the position of their participant. This embrace of subjectivity and the rejection of scientific rationality and objectivity are central to postmodern thought and theory, and have influenced qualitative methodologists to shift their focus to "the nature of interpretation and the position of the qualitative researcher as interpreter" (p. 20).

3.5: Potential Problems

When conducting a case study, it is inevitable for a few problems to arise. In order to facilitate my study, it was important to anticipate a number of potential problems that may have developed over the course of the study. For my study, I was able to foresee minor but notable issues when dealing with participant selection and availability, the influence of observation, and other ethical and legal issues that may arise. These areas were given special attention in order to keep my research on course and in line with case study methodology.

3.5.1: Participant selection. Some of the first problems I expected to encounter were in the process of participant selection. The problem of participant selection is often that research situations are far too large to interview everyone or to observe everything important to the case. Instead, a qualitative researcher should put in place selection strategies to ease the process

(Glesne & Peshkin, 1992, p. 24). Glesne and Peshkin explain that the number of participants selected for a given study and the time spent with each will change depending on the goals of the study itself. For more in-depth understandings, more time spent with fewer participants will yield the proper results. Conversely, for greater breadth a researcher should select many participants but spend less time with each (p. 27). In the case of this study, I had sought out as many potential enrollees for the program as possible, but I maintained an enrollment capacity of 15 participants. This group was designed to be small enough to allow adequate time for investigation and attention to what makes the each case unique. While most researchers argue that such a small sample provides difficulty in making generalizations, Flyvbjerg (2006) argues that identifying "black swan" cases might serve to falsify existing assumptions about a subject (for example, that all swans are white), and as a result have a general significance (p. 228). In order to increase the breadth of this study, I also attempted to identify the range of socio-cultural backgrounds of the workshop's participants, their different levels of access to technology, and varying degrees of participation in various modes of creation. It was my goal to attract a variety of students who had engaged in creating and consuming various types of media, from traditional arts such as drawing, painting, sculpture, and photography to new media like animation, video, and web-based content. These participants had different reasons for pursuing their artistic goals outside of the classroom whether it was due to school-based problems regarding access to materials, off-limits subject matter, or other factors.

I also employed Glesne and Peshkin's (1992) "snowball" or "network" techniques for finding participants – starting with the initial access to a single person and building connections from there. While this worked in some cases as artistically motivated students tended to gravitate towards each other and attend the workshop with close friends, I also used connections with local

teachers, access to community arts programs, and my instruction of a summer art program to survey, interview, and identify those students who fit my criteria.

3.5.2: Access and observation. Because much of my research investigated what students were doing outside of schools, it was impossible to gain access to every relevant experience a student would have in the week between sessions. Stake (1995) states that a qualitative researcher's goal in observing is to create a vicarious experience, or an incontestable description for later analysis (pp. 62-63). Observation became possible in my study by providing a controlled situation like the Digital Arts Workshop. This workshop proved to be an important site to understand the complex nature of how out-of-school activities related to or implicated in-school learning for these participants. However, it became clear that the presence of a researcher in the situation being observed is never neutral. This is an issue that Bogdan and Bicklen (2003) address, explaining that "the smaller the number of subjects, the more likely you are to change their behavior by your presence" (p. 56). Being aware of how my presence affected the dynamic of the case in each setting allowed me to acknowledge any changes I may have caused in the system being observed. Livingstone (1999) states that there are a number of inherent difficulties encountered when studying the informal learning activities of others. Particularly, issues of bias arise for the researcher when examining and evaluating the learning "projects" of others. Additionally, Livingstone notes that informal activities are on-going and occur at unpredictable times and places, thus making their observation difficult (pp. 3-5). In some cases, this type of work is often done at home, in private situations where observation would radically change the dynamic of the case being observed and become potentially instrusive. My picture of these events was necessarily limited to second-hand observations, interviews, and the analysis of artifacts from these events. This brings to bear perhaps the most significant problem that faced

this study: that access to student thinking is practically impossible to achieve. In order to avoid my own biases and keep from making assumptions about these inner worlds of the participants without sound evidence, I relied upon my triangulation plan. This allowed me to compare forms of data and overcome these difficulties.

3.5.3: Ethical and legal issues.

There were naturally a number of ethical and legal concerns to be encountered when initiating a qualitative case study. A key concern of a case study researcher is to ensure sensitivity toward the lives of the people that they are studying. Particularly when dealing with participants who were be minors during the study, it was important to have in place a set of tested safe guards in order to maintain an ethical approach to the research. I followed the recommendations of Bogdan and Bicklen (2003), who offer some advice for taking an ethical approach to field work. First, they recommend avoiding research sites where informants may feel coerced to participate in your research. Second, a researcher should honor participants' privacy. Case study researchers should also be sensitive to issues of time investment of participants, protection of identities. Ultimately, a case study researcher should treat subjects with respect, be clear about the terms of the study, and behave truthfully (pp. 44-45). Stake (1994) elaborates on these positions, explaining that a qualitative researcher should be practice openness with their participants, and remain sensitive to the risks participants are exposed to, including loss of standing, employment, and self-esteem. As a standard, researchers should go beyond the established rules of protection for human subjects, avoid unnecessary probing of sensitive subjects, and draw upon others to oversee these ethical safeguards (p. 244). In addition to careful adherence to these guidelines, I also took the appropriate steps to have my research plan

approved by the Institutional Review Board. These steps together helped to ensure that the ethical treatment of my research participants remained a priority.

3.6: Conclusion

This chapter outlines the methodological framework that guided my research of the online visual culture of teenagers, and its' relationship to their learning across educational settings. The strengths of qualitative case study research fit neatly with the goals of my study, and they offered a valid avenue for investigation to place particularly in light of postmodern theory. I have also described important steps that were taken to address issues of participant selection, access, and other ethical concerns. Finally, I have outlined the methods of my research, explaining the processes of data collection, analysis, triangulation, and validity in terms of qualitative case study research. Through the use of these measures, I believe it was possible to fully investigate the issues laid out in Chapters 1 and 2, and to come to meaningful and fine-grained understandings of the case at hand.

Chapter 4: Results

In this chapter, I present the findings of my case study on the DigArts workshop. To present these findings, I have provided a narrative account of the DigArts workshop's nine sessions, and I have drawn primarily upon the subquestions presented in Chapter 1. My reasoning for doing so is that a discussion of the broader issue at hand is best explained in greater detail in Chapter 5, after a depiction of the events and unique qualities of this case have been made clear. Thus, this section of the case study begins with a discussion of events leading up to the DigArts workshop, and I will then describe each day of the 9-week program in a linear narrative.

4.1: Background Information and Events

Planning for the Digital Arts Workshop began in October of 2013. At this time, I had been exploring ways to set up a "third space" for local area teenagers to explore their own interests in the intersection between art and technology. In this effort, I encountered two immediate obstacles to overcome: finding a place to meet and gaining access to technology for my participants to use. I had initially hoped to combine my efforts with those of the University's Saturday Art School (Saturday School) program. Saturday School has been a program facilitated by the Art Education department since 1964, and it has offered Saturday morning art classes to area children aged pre-k to high school taught by students in the department in the Art and Design Building located on campus. According to the program's website, it plays three different roles to various populations: as a community outreach effort within the Champaign-Urbana and surrounding areas, as a teacher preparation site for Art Education undergrads, and as a research lab for curriculum development, artistic development, and instructional methods (Saturday School, 2014). I had personal experience with this program, both teaching for the first time as an

undergraduate, and later serving as a graduate instructor for the high school age technology-based section, overseeing the first teaching experiences of undergraduates. Naturally, this seemed like a good place to begin, but due to changes in the program's structure and operation, it was necessary to set up a workshop outside of the usual Saturday School system.

However, Saturday School's new director, Dr. Tyler Denmead did suggest that I contact Robert Baird at the Media Commons at the University's Undergraduate Library in regards to my tech needs. I made initial contact and explained briefly my program's concept and its role in my research. Excited by the prospect of using the Media Commons resources to reach out to the community, Mr. Baird and other members of the Media Commons team granted my workshop a space in one of their computer labs as well as access to resources such as cameras, scanners, and so on.

In order to accurately describe the qualities of this workshop, it is also important to paint a clear picture of our primary meeting space, which held a few unique and notable characteristics. The computer lab granted to us by the Media Commons was tucked away in a corner of the upper level of the Undergraduate Library (UGL) on campus. The UGL, located just east of the University's Main Library, was a two-story cube sunk into the ground as opposed to rising out of it. This was an architectural design tactic when the building erected in the 1960s to protect the agricultural school's long-standing research plot just to the east from shadows cast by the structure. Thus, our meeting place on the "upper level" of the two-story UGL was actually one story underground. From above, the UGL was concealed by a red brick surface, except for a fenced square opening that shielded the open courtyard that jutted into the ground. In order to access to the UGL, one had to descend underground by way of either the entryway at the surface level or by tunnel from the Main Library. Once inside the UGL, it was difficult for even the most

seasoned graduate student not to become slightly disoriented. When getting around either of the nearly identical levels, one was forced to travel around a square path, and it becomes useful to count how many times you've turned. The further one moved from the courtyard windows in the center of the square, the more subterranean the building felt. Our lab in particular was built into a corner far from the center courtyard and the main entrance. Near the entrance was the Media Commons circulation desk, and signs pointed the way to the other Media Commons workstations and the gaming center. Our lab was a modestly sized room in a corner of the library, with windows and a door that could be closed off from the rest of the space. This lab was also outfitted with 20 desktop computers organized into 4 parallel rows, an overhead projector and screen situated at the front of the room, a flatbed scanner, and an instructor's station with computer and projector controls. It was a dead zone for cell phone service, and far out of reach of natural light and the bustle of the usual UGL patrons.

With the lab and resources in place, I began to focus my attention on recruitment procedures in order to find participants for the Digital Arts Workshop. I understood when designing this study that the act of asking participants to "sign up" might run counter to the nature of a true third-space environment, but as consent of participants was required for research approval from the IRB, an enrollment and informed consent process was necessary.

I began drawing up a flier aimed at the prospective participants, and I also drafted letters of informed consent that explained my goals for the workshop and its' connection to my research. The flier articulated my connection with the Media Commons' resources and location, but also described the independent nature of the workshop. This flier also listed my contact information, and asked interested students to have their parents contact me for more information or to communicate any questions they had, and also so that I could provide them with the

informed consent letters for enrollment. Having previously built connections in the community with a number of local art teachers, I wrote a personal letter to each explaining the nature of my project and included the promotional materials in hopes that they would pass the information along to their students.

This flier also directed students and parents to an online blog[6] I had created to serve as the digital home for the workshop. I initially used this space to make copies of the flier and informed consent letters available to anyone interested, especially in the case of word-of -mouth recruitment opportunities. I also posted some biographical information about myself, and examples of my own digital artwork. Additionally, I posted an anonymous poll on the blog that had asked students to tell me what they would like to be learning in the workshop. This poll helped me anticipate what kinds of technology we may need to provide, as well as provided an initial insight to the students' personal interests. The results of this poll suggested that students were mostly interested in learning "digital graphics" (9 votes), followed by animation (7 votes), video/film (5 votes), web design (4 votes), photography (2 votes), and other (1 vote). Based on this feedback, I began some minor planning for things that I might introduce to the group. I began planning to post a daily tutorial or "trick" as an agenda item to this blog, which students could choose to follow or to work independently on something self-directed if they preferred. I specifically chose to frame this not as a "lesson", but rather as a "trick" or "tip" that I had found and thought was worth passing along. This was done in order to maintain a sense of informality in line with third space theory.

My initial hope was that I would be flooded with responses from eager students and parents, but things got off to a slow start. Of the 10 teachers I contacted initially, only two

[6] The DigArts blogged can be accessed at http://digitalartsworkshop.wordpress.com/

responded to express their willingness to pass the information along. It should be noted that of the 15 students who officially signed up for the program, nearly half came from the same school in Mahomet, a few miles from campus. One participant from another local high school enrolled through the flier efforts, as did two students who were currently enrolled in the Saturday School program I had met in previous interactions. Another doctoral student, Jen, passed my information along to another parent of a teen who was potentially interested in the workshop. This teen then recruited two of his friends to come along by word of mouth. In this case, a broad net turned up a manageable number of willing participants for the workshop and enrollment snowballed somewhat naturally through participants' contact with their peers, even as the workshop was underway. In all cases, participants provided a signed letter of informed consent from themselves and their parent or guardian upon joining the workshop.

4.2: A Narrative Account of DigArts

4.2.1: Session 1: January 25, 2014.

Opening and introductions. It was bitterly cold outside as I walked briskly from my car in the snow-dusted parking lot toward the Main Library entrance. January in Illinois is not typically known for warm weather, but this year in particular seemed much colder than usual. This subjective feeling was backed up by the data, though, as many parts of the Midwest were experiencing sub-zero temperatures and piles of snow, and I had opted to take the underground tunnel to the UGL. On all of my social media feeds, people had been calling this the "#polarvortex"[7].

This was the context of the Digital Arts Workshop as participants began to enter the

[7] On Twitter and certain other forms of social media, the "#" symbol is used along with descriptive text to categorize posts on a certain subject, and is known as a hashtag. The "#polarvortex" hashtag was often used during this time by users in posts that referenced the cold weather, and it had become somewhat of a social media phenomenon.

classroom for the first time. As participants slowly trickled through the door one-by-one, I introduced myself by name and asked them to sign in on the provided roster. I then let each know that they could pick any seat they liked. I wrote their login and password on the whiteboard, and showed them how to log on to their computers. As we waited for the rest of the participants to show up, I attempted to initiate some small talk with the attendees. During this time, I circulated around the room and engaged the newcomers in simple conversations regarding where they called home, who their art teacher at school was, and so on. As was the case for most other workshops I have previously taught, some of the participants were initially reserved during these first interactions, sticking close to peers and offering polite but brief responses to my questions. Given some time to quite literally warm up, a few of the attendees seemed eager to begin communicating with me. Carson, a group member that I had previously met while observing at the Saturday School program the previous semester, remarked that he had been looking forward to the workshop even though it was not easy to get to campus. Another participant, Jon, who arrived with his friend, Henry, introduced himself by asking about my connection to the adult who had told him about the workshop. Many of the other students introduced themselves and began to ask questions about what opportunities the workshop was going to provide them.

As more participants began to file in, the room started to buzz with conversation. I knew from my recruitment that many of these students would have already established friends in the group from school or other situations. However, I was pleased to see participants introducing themselves and talking informally with others as well. As I circulated, students asked questions about what kinds of technology would be available for them to use and if they could bring their own from home to use. I quickly polled the group to see whether they were typically Mac or

Windows PC users, as our computers could be booted up in either platform. The group overwhelmingly stated they were Windows users at home, and made it clear that they would prefer using a Windows-based machine if possible. Our lab's computers luckily were provided with both operating systems, and I circulated the room helping the attendees reboot their computers into Windows if they wished. Although they seemed to sit near other peers they already knew from school or other connections, some cross-clique conversations were already beginning to take place, and I was able to interject myself into a few friendly moments. During these conversations, I quickly began to get answers to some of my initial research questions, particularly in discovering what types of digital and online media these students were engaged with. It became clear early on that video gaming was a popular activity shared in common between group members. In this informal group interview session (Appendix), David offered to the group that he had recently gotten the popular game *Minecraft*[8] installed on his home computer, and many of the other participants jumped in on this conversation, offering which other video games they were most interested in. Jessica said she had stopped playing *Minecraft* as much in favor of *Diablo*, and action combat game set in Hell, and Carson recommended the role-playing game (RPG) *Guild Wars*[9]. David agreed that *Guild Wars* was also one of his favorites. After letting these conversations continue for a moment, I decided to shift focus to a quick introduction of myself, provided an explanation of the program, and took a moment to have each participant tell the group about themselves. Through these introductions I was able to identify some key information about their interests in and out of school, about their art making,

[8] Popular low-fi graphic "sandbox" game that allows users to build structures and sculpt landscapes using basic blocks of various materials.
[9] As opposed to many other massive multiplayer online role playing games (MMORPGs), *Guild Wars* focuses more on hand-to-hand combat between two players as opposed to team-based cooperation in completing a quest.

and their aspirations for the workshop. It became clear to me that there was a diverse group of participants, both in their varied interests and in their skill levels. It was also clear that cliques between school groups seemed to provide a way for students to find their place in the group, but some introductions between these cliques were also made. I have chosen to include the full transcript of their introductions in the Appendix in order to help readers gain a better picture of who each of these participants were in their own words on this first day.

Demonstration and work period. At the conclusion of this brief introduction section, I asked participants to turn their attention to the screen at the front of the room, where I had pulled up the workshop's blog. I asked for a show of hands as to how many people were familiar with the subjects of animated GIF images, and many shared their experiences using or seeing them used on message boards and other social media that they used regularly. I showed the group some examples from contemporary artists and popular sources using the GIF technique in their own work, which I posted links to on the daily agenda. During this time, the participants were eager to talk about the work we were looking at, sharing their opinions about each and trying to figure out how looping effects and other tricks were achieved by the creator. This conversation was enjoyable and I lost track of time during our discussion and perhaps was somewhat over prepared. I was happy, though, to have such an active discussion on the first day of the workshop. From there, I asked the participants to open up Photoshop and follow along with me as I walked them through the technical process of first animating a bouncing ball GIF from scratch, and then how to take video files or series of images into Photoshop and manipulate to create a GIF image. This seemed to be the point at which the workshop first experienced some disorder. I noted in my journal after this session that I had felt a bit harried in this process, and that technical issues were beginning to become evident (research journal, January 25, 2014). The

process for creating a GIF had been somewhat confusing, and involved working tediously frame-by-frame. It also required some diligence and a fair amount of time working before any final result was achieved. It quickly became clear that many of these participants were new to the Photoshop software, and the long and somewhat non-intuitive process made the animation project a poor place to have begun the workshop. What I thought would be fun, simple, and flexible seemed to be none of these things, since I fumbled on my own during some of the steps. With few explicit directions, I encouraged participants to make use of their personal phones or the iPads I had provided to shoot their own footage or take their own pictures so that they could play around with the process in their own way. However, only a handful of the participants seemed interested in pursuing this option at this point, perhaps because the prospect itself seemed daunting, or because the demonstration and tinkering phase had taken longer than planned. After setting the students out on their own to work independently, I circulated between workstations fielding questions and helping out problems as they arose. While many continued to tinker with their animations at their workstations, it became clear that other students were content to talk with each other about their interests in video gaming, music, and other off-topic subjects. I continued to circulate and help those working on the animation, but I also checked in with students who had seemingly given up on the day's activity in order to hopefully recharge their interest.

At this time, two new additions to the group appeared at the door. I greeted them, and they introduced themselves as Heather and Calvin, and explained that they had gotten lost trying to find the computer lab and had been wandering around campus for a while trying to locate us. I apologized for their confusion and said that I was glad they were able to find our bunker down in the UGL. I quickly recapped the project for them, this time trying to be more concise and to

present it as a more open ended challenge to discover the Photoshop tools for animating through playing around. For the remainder of the class, the dynamic between participants continued to become more friendly and spirited in discussion, and they started to share their own advice and suggestions with their nearby peers. In another part of the lab, the conversation revolved a common question for teenagers: What is your dream car? As I circulated, I noticed that David was intently watching YouTube videos of an auto race, and was happy to share his knowledge with me about this subject. I attempted to prompt him to find some race footage that could be looped as a GIF, but he remained content to browse videos for the most part by himself and periodically share with his neighbors or myself.

Somewhere during the final 30 minutes of this first session, it became clear to me that the expectations I had held at the outset for this workshop would need to be significantly reconsidered for the upcoming weeks. The task that I had presented had derailed to some degree, I believed, and I felt some palpable frustration from certain corners of the room. In others parts of the room, participants still tinkered with the GIF-making process, although most had turned their attention to sharing deviantArt and other social networking profiles with one another. However, I was encouraged by how quickly the conversational divides between school-based cliques seemed to be dissolving as they talked amongst each other, and the overall feel of the room was mostly cheerful and energetic (research journal, January 25, 2014). If they were not all interested in my project, I was still satisfied as long as they were engaged in conversation with others or were working independently on something self-directed. We had all chosen to go out of our way to be here on this inhospitable late-January day, and no one seemed to be regretting their decision just yet. I took this as an opportunity to reiterate that we would be working together, and that although things would not always work perfectly, we would learn through the process and

that the workshop could become whatever they needed it to be. I spent the final few minutes of the session carrying out some brief interviews with participants to gauge their familiarity with Photoshop, to hear their frustrations with any of the day's difficulties, and to learn more about their digital art and media interests in general. During this time, they seemed eager to share the exposure they had had to various types of digital art-making both at home and at their schools, and in some cases they expressed minor disappointment in the limits of our software and other resources in this lab. Charlie explained that he was enrolled in a 3D animation course at school, in which they were learning to use the program Autodesk Viz. Charlie also said that at school he had previously worked with Adobe's Flash and Fireworks software, but was interested in trying out Blender, a freeware alternative for 3D modeling and animation. Kristin also argued that her and Charlie's school offered options for students who were interested in digital artmaking, but lamented that as a Sophomore she was unable to enroll in these upper-level courses (Appendix).

A few minutes later, Eva joined the conversation that we had been having. During this exchange it became clear that Eva had a good deal of support and encouragement in her digital art-making at home, particularly from her father. She explained that her dad, a "computer geek" had recently bought her 3Ds Max (a more robust version of Viz) and a special 3D mouse, which she was having difficulty getting the hang of. She also was interested in animation, describing it as her "thing", particularly GIF images, which she showed me a few examples of posted to her deviantArt gallery (Appendix).

For the remainder of the session, I continued to walk around, and enjoyed conversing with students as they showed me work they completed for the day or needed help exporting the file so they could email it to themselves. The buzzing of conversation slowly subsided as students eyed the clocks on their phones, waiting for my permission to be dismissed and head

back out into the cold. As I gave the final announcements for the day and made sure to gather all consent forms I had not yet received, students slowly began to file out of the room. David stuck behind a little later than other students, and wanted to know if I had ever heard of the auto racing game *Grid*, in which he had recently completed a 2-hour simulation of the racetrack at Le Mans (Appendix). After David had exited, I sat in the newly quieted room for a moment and collected my things, before switching off the projector and beginning my own walk to the car. I felt energized by the days events, and began making plans for adjustments in the next week to smooth out some of the hiccups the workshop experienced on its first few hours (research journal, January 25, 2014).

4.2.2: Session 2: February 1, 2014.

Pre-workshop and warm-up. The week leading up to Session 2 had been dotted by periodic blankets of snow, and temperatures dropping down well below zero during the night. As a result, many of the local schools had been forced to cancel their operations for a number of days during the week. The forecast for Friday and Saturday made me hesitant to go forward with the workshop as planned, concerned for the safety of students traveling in from out of town. The night before the workshop, I personally had a slow and cautious drive from Chicago, but as I got further downstate much of the snow and ice had dissipated into slush. I decided to go forward with things as planned, and made my trip to our computer lab just after noon on Saturday. As the participants began to file into the computer lab just before the session was to begin, they seemed cheerful, and we held an informal poll of who had had the least days of school the previous week. Carson, a home-schooled student, lamented that his studies were never interrupted by the weather, since he didn't have to leave the house. He and Eva had also brought in their personal digital drawing tablets from home and were in the midst of attempting to set them up for the

desktop computers.

As I sat back down at my instructor's station, the participants had mostly settled into the same seats they had found the week before. Some small talk began to occur with their friends, but for the most part the room was comfortably quiet, and notably more subdued than last week's pre-workshop warm-up period. Again, I sensed that the students showing up were excited to be there, and were looking forward to continuing after last week's issues. Carson shared his Tumblr[10] page with Eva, although he warned her that he did not use it much anymore. I checked back in with Carson to see if his tablet was working yet. He was watching a cartoon embedded on a website I was not familiar with. Carson explained that it was a fan-created cartoon spinoff of the popular animated series *Adventure Time*, and that he had stumbled across it earlier in the week and wanted to share it with people in the group. Jessica, Eva, and Charlie recommended that I watch this show, and they explained that they liked it for its' style of animation and somewhat nonlinear storylines.

Adventure Time was a popular site of visual culture shared by many DigArts members. It caught my interest first for its' grassroots credentials, and I learned from participants that it was originally created and crudely animated as a YouTube short. Its' creator, amateur Pendleton Ward, retained creative control when it was picked up for development by the corporately owned Cartoon Network. Although the cartoon airs on cable television, it is also still made widely available in short clips online. Workshop participants seemed to surf YouTube for most of these clips, as opposed to the Cartoon Network's official website, which requires viewers to watch a commercial before viewing. *Adventure Time* also stands out in style from other contemporary animated series due to its' use traditional hand-drawn animation processes, as opposed to the far

[10] Tumblr is a short-form blogging platform, often used for sharing images and videos with followers. Users may also "reblog" a post from another user on their own Tumblr page.

cheaper and more efficient digital technologies employed by most corporate studios.

Although each 12-minute episode is crammed with fast-paced dialogue, non-sequitur quips, surreal animated sequences, and crude and dark humor, the central plot follows Finn (the last surviving human teenager) and his shape-shifting dog friend Jake as they go on quests in the post-apocalpytic Land of Ooo, which is inhabited by anthropomorphic candy and other creatures. Often, the quest is centered on assisting one of many of the kingdom's princesses (Princess Bubblegum, Lumpy Space Princess, or Slime Princess, to name just a few).

Our discussion of *Adventure Time* led into another spontaneous conversation in which participants shared their interests in cartoons with me, recommending others such as *Uncle Grandpa*, and expressing their contempt of others like *The Annoying Orange*[11] (Appendix). This conversation continued for a few minutes, as a few more participants filed in through the door and settled into their previously established zones. The room was much quieter than last week, so I turned on some music on Pandora[12] to provide some background sound and provide a more conducive environment for informal conversation to occur. I received feedback from Eva that the tablets weren't quite working right with the computers. She demonstrated that her finger would affect the cursor on screen, but the pen itself would not. Her frustrations with the tech issues were minimal though, and she seemed to take it in stride. "I guess it's like digital fingerpainting," she remarked (personal communication, February 1, 2014).

Carson called me over to his workstation and shared with me the GIF he had started the previous week but finished on his own time. He apologized to me that he had not done more during the workshop, I assured him it was no problem. Seeing this as a way to gain access to

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[11] *The Annoying Orange* and *Adventure Time* are both examples of cartoons that began as amateur produced YouTube videos and were picked up by the cable-based Cartoon Network.
[12] An ad-supported personalized online radio website, that takes user input to create streams of related music and suggestions for similar songs.

more of participants' self-initiated work, I said that I would love to have links to some of their blogs, galleries, or other images if they were interested in sharing, and I wrote my email address on the whiteboard in case they felt like forwarding me anything. Eva and Carson obliged, and I received a copy of Carson's GIF image and a link to Eva's deviantArt gallery.

Upon examining Eva's gallery later, I noticed some broad themes that emerged in her artwork. Her style was typically cartoonish, seemingly inspired by the manga/anime style of figure drawing. Many involved people, anthropomorphic animals, and other images that referenced her popular culture interests. In general, browsing through her deviantArt gallery provided a glimpse into what was important in Eva's life, and many of her drawings that she posted were accompanied by text that explained the piece's purpose or what was going on in her life to inspire the work. One image that I found most intriguing was *Hair* (Figure 1). In this piece's accompanying text, Eva wrote eloquently about an interaction she had had recently with her parents regarding her wish to change her hairstyle:

> I wanted to do a faux hawk. I've been kind of doing one for years but not fully shaved. I asked my mom if I could actually shave down one side of my head and maybe have a design shaved in it too. Then she asked if I had my father's permission. Being as he is, he said no. Because he said I needed to have a more "decent" haircut. Though I backed down quietly, rage built up inside me. I don't want to be decent, I don't want to be normal, I don't want to be blank. So I've given myself a goal: Once [I] start working and get this haircut or get a tattoo or some kind of piercing, I'm going to still work as hard as anyone else. To show that even though you stand out or you're different, it doesn't mean that you can't work as hard as others who look more "professional." (Hair, 2014).

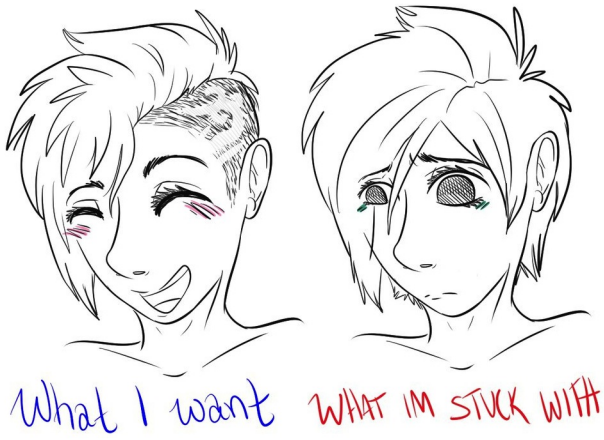

Figure 1. Eva's sketch accompanying her post on deviantArt titled *Hair*

I hoped that in the weeks to come, I would get to talk with Eva more about the work she posted in her gallery and what motivated her to share these experiences online through artwork. Browsing through more of these images brought me to a much deeper understanding of her home life and other aspects of her life that were outside the context of the workshop.

Sitting next to Carson, Charlie had opened Apple's Garageband software and was tinkering around with its music-making tools. Further down the row, David had been watching another auto-racing video quietly. Eva and I talked a bit about the faculty members we shared in common having attended the same high school.

> Brad: I have to ask, who do you have for biology?
>
> Eva: Mr. Kilner.
>
> Brad: Oh yes, "Dr. K" is what we used to call him. He has a really unique energy, let's put it. He supposedly used to throw scalpels.
>
> Eva: He's fun! But we haven't really truly seen him angry yet. (personal communication, February 1, 2014)

Demonstration and work time. After last week's difficulties, I decided to present a much easier "trick" for the day (research journal, January 28, 2014). I decided the best approach

might be to find a single feature in Photoshop that could provide eye-catching effects with very few steps. Having seen a few examples online, I decided to show them how the "Polar Coordinates" filter in Photoshop could warp an image around itself into a sphere. A number of people online had found a way to use this simple trick with landscape photography to create a surreal "tiny planet" image from the original source. I spent a brief amount of time in the week walking myself through this process in Photoshop and making a number of examples, and I assessed that it would hopefully be closer to the skill level of the participants. The process was simple, and made use of Photoshop's built-in filter to attain quick results. I showed my examples on the projector screen to an enthusiastic response, and then I opened up Photoshop to walk the participants through how I created my own examples step-by-step. During the week I also attempted to post a more thorough walkthrough to my blog for those who might have needed to go back and look at directions after the hands-on demo was over, and I also made efforts to speak more slowly and to point out clearly where each tool needed was located on screen a number of times (Figure 4). These combined efforts seemed to help the group overcome many of the problems from the previous week, and participants were eager to jump into the process themselves. Once my demonstration was complete, they began to browse Google Images and their personal photo collections on Facebook, deviantArt or other social profiles for images that could be used with this effect in mind. I was pleased with how much more smoothly the day's events seemed to be going, and I continued to circulate around the room to help solve issues on a case-by-case basis. During this time, I continued to conduct informal interviews with students in order to uncover more answers to my initial research questions, and also so that I could know each participant better.

Students still seemed eager to make personal connections with me throughout this session. I made my way to Hector's desk to offer some assistance with the photo he had selected to work on. Hector explained to me that it was a photo from Barcelona, which was where he was born and lived before coming to the United States. I said that one of my favorite artists was from Barcelona, and Hector responded enthusiastically, "Dali? He was the uh, uncle of my grandma!" I expressed some skepticism at his claim, and Hector attempted to trace through his family lineage to explain this connection for me (Appendix). I saw this as just one of many interactions that happened during this and other sessions in which participants seemed to cultivate a role or identity of expertise within the group. In cases like this knowledge or intimate connections to the "fine art" world seemed to be as important as their investment in popular culture.

As I continued to circulate, I helped participants deal with issues as they ran into them, and I noticed that David had closed his auto-racing videos and was playing intently with deviantArt's Muro app. This additional feature to deviantArt's galleries provides basic digital illustration tools that users can employ in creating their own digital artwork. The Muro app appeared to be almost a stripped down and friendlier looking version of Photoshop's paint and illustration tools, and it worked in similar ways to other digital painting and drawing interfaces. Within the app, users have the option to pick a brush size, shape, and color, and they may also use familiar tools like the paint bucket to create works of art. I asked Eva and Carson if they ever used this feature when creating work for deviantArt, and they both agreed that it had been useful in the past, although they expressed excitement about learning to use something more professional and powerful like Photoshop in the future (personal communication, February 1, 2014). The participants who had pursued working with the "mini planets" trick had chosen a variety of images to work from, largely places they would like to visit. Jessica had picked a

photo of Japanese lanterns floating in a body of water, and Calvin had been working on a composite of several photos of castles blended into one long panorama. The usually confident Carson raised his hand, and I made my way to his desk to assist. He practically whispered:

Carson: I don't really know much about Photoshop…

Brad: You don't really want to say it too loud, huh?

Carson: Yeah. (personal communication, February 1, 2014)

Being careful not to speak too loudly, I continued to assist Carson by walking him through the basic steps of the daily trick. After taking him through the process step-by-step, he was later able to reproduce the effect with other images, and remained busy for some time after trying it out in various ways.

When I made my way to Jessica's workstation, she was eager to share with me her drawings for the *League of Legends* skins mentioned in the previous week (Figure 2). She explained that they had not yet been published and were works in-progress, but that she had aspirations of submitting them to the game's marketplace. She explained that users could use in-game money (paid for for by real money) to buy skins designed by other users, and that this skin concept in particular was "pitched" to her by a friend. Her part in the design process, she said, was largely to have three different perspectives of the character drawn and colored as a concept that could then be passed on to another designer to be completed (Appendix).

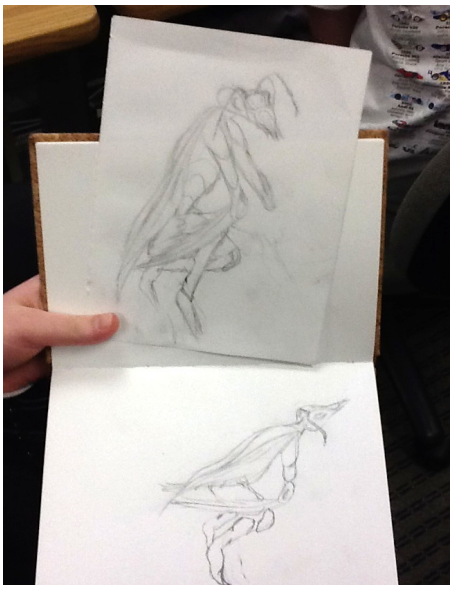

Figure 2. Jessica's drawings for her "League of Legends" skins

This week, Jessica had brought her friend from school, Samuel, who was absent on the first day of the workshop. I had not yet had a chance to talk to Samuel much on this day, so I checked in with him to find out more about what he was interested in and what he was working on. Samuel was quiet but polite in our interactions, but he seemed shy about sharing too much so early on. I made a note to pursue interviews with him at a time during which he seemed more comfortable with interacting with me (research journal, February 1, 2014).

I noticed that the Urbana clique, composed of Jon, Henry, and Hector, had been having a few more issues than some of the other students, and so I made my way over to their part of the lab to walk them through the process together. They watched intently as I demonstrated using their source photos, but they seemed to have difficulty learning their way around Photoshop's non-intuitive interface. I worked closely with these participants for the next 15 minutes, and I also made a note to continue working with this group, as it appeared to me that they were enjoying the experience but might appreciate more guidance and direction than others in the group (research journal, February 1, 2014).

During my circulation around the room, the conversation had turned back to video gaming for some of the participants. Carson brought me into the conversation, asking me directly, "Are you a fan of *Scribblenauts*?" I had to admit that I, again, was not familiar with this game, and he and Jessica attempted to explain the purpose to their best ability. They explained that *Scribblenauts* was a word-based puzzle game, and that the gamer had to solve individual levels by "summoning" special items from the game's library by simply "scribbling" the word and other modifiers into existence. Carson argued that the *Scribblenauts Unmasked* edition (which was produced in league with DC comics) was better because it allowed you to spawn various popular superheroes (Appendix).

I made my way over to the other side of the room where Calvin and Heather were seated together, and they were discussing the issues they had had in getting their projects just right. Up to this point they seemed to me to be diligent and independent workers, and they were often found to be quietly critiquing each other's work. They shared with me some of the insights they gained about the project, and they seemed content in working with this process. By this time, the Urbana clique and other participants were happy to start showing me their results and they were visibly proud of being able to accomplish today's trick for themselves (research journal, February 1, 2014). I urged these students to send me copies of their work, but they seemed hesitant to do so this early in the workshop. In order to keep the environment informal and free of any official assignments or requirements for participants, I did not press the issue at this time.

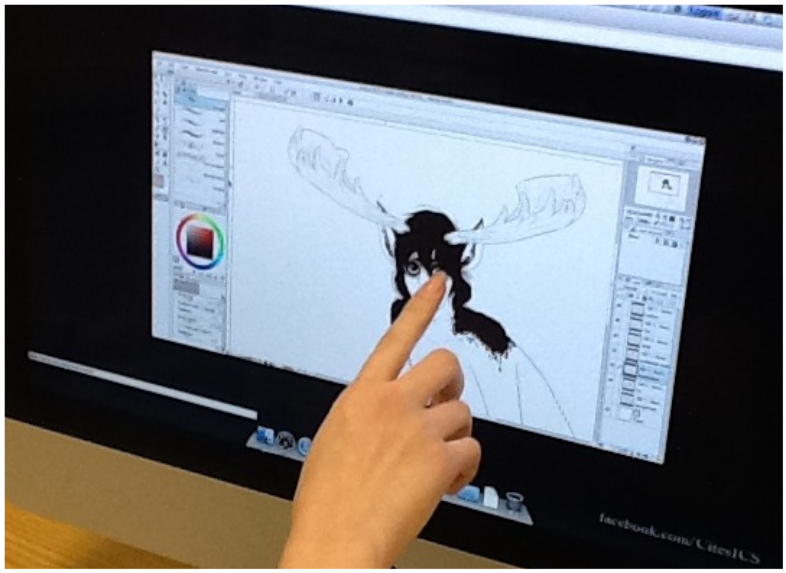

Figure 3. Eva shows and discusses her progress on *Emo Moose* (2014)

Eva had moved on from the initial project and was eager to share with me some more of her recent work (Figure 3). She pulled up an illustrated image that she had posted to her Tumblr of an anthropomorphic moose with jet black shaggy hair and stylish clothing. This character, she said, she had drawn as a response to a challenge from a friend to practice her skills with anatomy. In addition to this image, she had posted a number of other anatomy studies she had found online as references. The illustrator she used was Manga Studio 5, and she explained that her illustration process typically began with a red sketch of the figure, and then was refined by successive layers of detail and digital "inking" with the simulated brushes provided by the software. In the end, she planned to post the finished product to her Tumblr and deviantArt galleries (Appendix).

I was curious to hear more about how interaction on deviantArt occurred, and so I followed up on this line of questioning.

Brad: Do you get a lot of feedback from other people when you post your work?

Eva: Well, this one has four notes.

Brad: That's great, are they all from friends or strangers?

Eva: Yeah, they're all pretty much friends, so they're typically nice comments… But one of my posts, I did get "Tumblr famous". It got 5,000 notes. It was during this time when all these previews for these various games were coming out, so I took the logos and drew a bunch of people around them going like this [hands up gesture].

Brad: So you think the excitement around the games led people to find your art?

Eva: Yeah, pretty much. It was interesting, I didn't expect it at all. (personal communication, February 1, 2014)

This pattern continued for the remainder of the session, and before long it was time to call an end to our meeting. I said goodbye to the participants as they left, and I once again sat down to collect my thoughts on the day. I felt better about the way things had gone, and the trick I had introduced certainly seemed to be more manageable for the participants with less experience. I felt at the end of the day that the group members seemed more comfortable in the situation and they were beginning to share more about themselves and their interests (research journal, February 1, 2014). I continued to think of ways to engage this group based on the feedback I received and from my own observations of their skills and interests.

4.2.3: Session 3: February 8, 2014.

Pre-workshop and warm-up. On the day of the third session of the workshop, I settled into the classroom once again just after noon and I wrote the usual daily items on the whiteboard. Carson was the first participant to arrive, at about 10 minutes before the official start time. By this time, our pre-workshop chats had become somewhat of a custom. In front of the group, Carson was confident and seemed eager to play a leadership role within the group. He seemed to be knowledgeable on whatever subject was being discussed, and he certainly wanted share his

work and knowledge with others. With a knack for illustration and ability to create eye-catching work, the other members of the group seemed to look to him as one of the more advanced members of the group. However, in our private discussions, he was more open about vulnerabilities when dealing with Adobe software like Photoshop, which he admitted to me was something he'd never had access to before as a home-schooled student. Carson pulled up an avatar he had drawn for his Steam account, which is a marketplace where gamers can buy and download games by professional and independent developers directly to their computer. We had another brief conversation about his interests in gaming, and when asked for his current favorite game, he responded that he liked both *Warframe*[13] and *Loadout! Warframe* was an older game (released in 2013), he explained, but still one of his favorites. He also argued that although *Loadout!*[14] in particular was known for its' gory aesthetics, he found the over-the-top depiction of the gore in the game as "comical" (Appendix).

Soon, a few more participants started to file into the lab and they sat down quietly at their computers. Before long the room was once again buzzing with conversation between group members, and I checked in with group members about how many snow days had been called in the past week. The group struggled to answer my prompts for conversation, and Calvin shrugged and said, "I just live day by day."

More group members had brought in digital tablets today, and all of them were having difficulty getting the tablets to interface with the lab's computers. Jon and Henry informed me that Hector was away at a jazz festival with his family, and Kristin apologized for missing last

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[13] *Warframe* is a free to download and play cooperative third-person shooter game. The central goal in this game is to help a race of ancient alien warriors conquer the "future wasteland of Earth" where humans no longer exist, according to Carson.

[14] Another interactive and customizable third-person shooter, whose marketing tagline is "Create, Customize, Kill!"

week's session. I assured her that it was okay, and that attendance was totally voluntary if there were ever conflicts with her schedule. The group was noticeably thinner this week, and from the outset the classroom seemed much quieter.

Demonstration and work period. Sensing that it was time to move forward, I introduced my trick of the day, which was designed to introduce the group to the differences between Illustrator and Photoshop. I had worried that too much focus was being placed so far on one piece of software, and I hoped that this would be a good way to try something new while appealing to some of the group members' demonstrated interests in digital illustration. Once again, I chose to look for a simple feature in the program that we could exploit to begin playing around in an open-ended manner, and I decided that Illustrator's Live Trace feature would be a good place to start. This feature could be applied to scanned pencil or ink work to easily convert it into vector shapes on lines, which could also then be easily cleaned up and adjusted within the program. In theory, I hoped that this would lead students to be able to more easily digitize their own drawings and bridge their digital and analog art processes. To demonstrate this feature, I pulled an image of Justin Bieber's mugshot from the Internet and brought it into the program. I then adjusted and applied the Live Trace settings to create a single-color vector drawing of the image. I repeated this process a few times to create three layers of varying contrast and color, which were combined to produce an overlapping three-color print of the image. I told the group that although I chose to do it this way, it could be up to them to find interesting ways to utilize the feature that were different from my own (personal communication, February 8, 2014).

This is when technical issues first started to present major complications to my plans for the day. As usual, I completed my demonstration and urged the group to try out this trick or work on something self-directed while I would circulate. I was pleased that many of the students who

were present decided to try out the new process, and a few of them wanted to jump right into Illustrator to play around with the Live Trace feature. I began to notice that group members were having issues opening the program on their computers. Carson brought this to my attention first, explaining that every time he attempted to open the program, it would immediately close out saying that the license for the program was unavailable. It quickly became evident that a software licensing issue was causing the lab computers to allow only one person to use the Illustrator program at a time. This obstacle seemed to bother me more than it did the group participants, as they were content to revisit other projects they had been working on independently. Carson pulled his headphones on and was watching videos on YouTube, Eva was scrolling through Tumblr, and others were tinkering with Photoshop. After a trip to the Media Commons desk, the problem was dispatched to someone outside of the building to be resolved. After a half-hour I could sense the group members were getting a bit restless, and so I decided I would simply sit and talk with them about different types of net-based artwork that were interesting to me. I showed them examples of Rafael Rozendahl's work, such as "Jellotime.com" that blurred the lines between art and fun, hoping that this sharing session would inspire an informal discussion about the intersections between art and web technology. However, this conversation was short-lived, as participants were momentarily amused, but continued to tinker within Photoshop and other self-directed activities while we waited for the Illustrator issues to be resolved. At this point, I was already feeling somewhat exhausted from worrying about my plans going awry, but I continued to push forward hoping to find a way to make sure everyone was engaged for the day (research journal, February 8, 2014).

Before long, the Media Commons attendant informed us that the issue should be resolved, and students were then able to access the Illustrator program. However, by this time,

more than half of the session was over, and the group members had visibly lost their interest in the Illustrator project. Henry and Jon were still actively working on this “trick”, but for the most part the group had moved on to other things. I circulated around the aisles to help as needed, and I admit that I payed more attention to students who were working with Illustrator to make sure there were no more major issues. However, Carson was eager to share with me another example of something that he created outside of the workshop that he had posted to one of his web profiles. He explained that for his work in digital illustration, he typically uses a combination of the software Autodesk Sketchbook and ArtRage. He also pulled up an animated short that he had produced (Figure 4), and was eager to share it with me and his peers. He explained that he did all the drawing, voicing, and editing for the piece over the course of the previous summer, although he couldn’t estimate how many hours of work he had spent on it (Appendix).

Figure 4. Carson shows his peers his animated piece.

At this point, the group seemed to be transitioning toward winding up for the day, and most group members were surfing the Internet or talking with their neighbors. For me, the dynamic of the day was disappointing. I felt as though my efforts to provide something fun and easy for everyone to explore had failed, and that the unforeseen tech issues had put a damper on

the day's events (research journal, February 8, 2014). I called the workshop to a close and I wished the departing group members a safe week. After I sat down at my desk to collect my thoughts, I struck up a conversation with Allison who was sitting near and was one of the only few students remaining in the room. She began packing up her things.

Brad: Taking off?

Allison: Yeah…

Brad: What are your plans for the rest of the day, avoiding snow?

Allison: I've got a huge sleepover that's going on at my house, so that's going to be fun.

Brad: Oh, wow! So you've got a lot to get ready for I'm sure.

Allison: Yeah… [eye roll]

Brad: You sound so excited!

Allison: Tons of screaming girls? Yeah… It's my sister's, so I just have to be around it.

Brad: Oh well that makes sense. How old is your sister?

Allison: Uh, actually, she is 20. She just acts like a child, so…

Brad: Oh no. [laugh]

I felt relieved for this moment of levity at the end of a long and difficult day.

4.2.4: Session 4: February 15, 2014.

Pre-workshop and warm-up. In the days before Session 4 of the workshop, group members around the area were granted a break from the difficult weather, and for the most part they had gone the whole week without having a snow day for the first time since the beginning of the semester. However, Jon explained as we waited for others to arrive that his week at school was still shortened by a teachers' service day on Friday, and he also would be having a day off on Monday for President's Day. "Don't you ever have school?" I asked. Jon laughed and shook

his head. It was still winter outside, but things were starting to feel much less punishing. Jon and David were so far the only group members to arrive, already 5 minutes into the session's set starting time. David asked where everyone else might be, and I suggested that the snowy and cold weather could have people running late. He agreed, and shared that he had just signed on to *Roblox,* which he explained was similar to *Minecraft* in its style and open-ended exploratory gameplay. He was especially drawn to the auto racing mini-games within the *Roblox* world created by other users and noted that a major reason he played *Roblox* was because it was free of charge to users, as opposed to *Minecraft*, which costs about thirty dollars (Appendix).

Soon, more group members started to file into the room and settled into their usual places. The conversation quickly picked up, and group members began to discuss the difficulty of the newest smartphone gaming craze, *Flappy Bird* and they solicited my opinion on decisions about their school artwork. Jessica shared with me two designs she had drawn for a ceramic vase project in her school's crafts class, and she asked me and her neighbors for our opinions on which would be better. We all agreed that that while the dragon vase would look great, it might be more difficult to pull off than the castle design. We talked more about other artistic projects they had been undertaking, and I checked in with the group members who were present as to whether they were expecting their friends to show up. Jon remarked that his usual cohort of Henry and Hector would be gone, and Jessica said she was unsure if Samuel would be there either. However, Eva brought a friend of hers from school, Elise, who she claimed was "the most amazing artist". The group was small again, but seemed ready to get started without more delay, and so I began to introduce the day's focus that I had selected.

Demonstration and work period. After last week's issues with the software licenses, I was hesitant to plan anything that would rely heavily on a specific software or tool. Instead, I had

chosen to focus more broadly on the connections between traditional and digital collage, and to show a few simple techniques in Photoshop for cutting things apart and combining them with others. This was meant to provide group members with another opportunity to play within the Photoshop software at their own speed and to allow them to discover new processes on their own through trial and error. I projected a number of examples of both types of digital and traditional collage on the screen at the front of the room by famous and not-so-famous artists, and then I also introduced examples from a digital collage project I had created a few years previously. I hoped that showing my own work would re-inspire some confidence and interest in the group as well as help facilitate a more two-way dialogue. I wrote in my reflections between sessions that I had been worried that students felt grilled when I had asked them about their artwork. I hoped this tactic would help allay some of the participants' anxieties and would allow for a more genuine transaction to take place between us (research journal, February 4, 2014).

The personal project I showed them on this day was a 200-page digital book of collages I had completed for a graduate class I was enrolled in the year before. The parameters for this assignment were pretty open-ended, and I chose to compose my collages digitally when I stumbled across a trove of digitized natural history books from the 19th century on Google. I shuffled through examples of my collages, and I explained how I had searched for interesting source material and experimented with ways to combine the elements of these illustrations together into something new. I explained that all of my work was created in Photoshop, but also that the lab computers provided an open-source image editing software called GIMP as an alternative for anyone that wanted to try something new. I also informed the group, who I knew typically did not have access to pricy Photoshop software at home, that GIMP could work on either Mac or Windows platforms, and that it was free to use and just as powerful as Photoshop

in most ways (personal communication, February 15, 2014). I also provided links on the workshop blog to additional resources and tutorials I found that might help group members through the process or inspire new approaches to the activity. After this discussion, the group was allowed to work on their own as usual, and I circulated around the room to assist and conduct informal interviews with group members.

Figure 5. David explores with his *Roblox* avatar

After an initial pass through the room, little conversation seemed to be happening. Participants were not yet in need of much technical help, and so I felt it was a good opportunity to try a new approach to collecting some data for my study. David was still playing *Roblox* on his workstation (Figure 5) and I asked him if it would be possible for me to join him in the game. I decided that I would see if I could engage him as my tour guide within this game in order to learn a little bit more about the game itself and how David behaved within it. I was primarily interested in what about this game commanded his attention so strongly, as well as what distinguished it from what I saw as similar games like *Minecraft.* I asked him if he would be willing to show me around for a few minutes and he was excited to have the chance to share his gaming with me. I went back to my instructor's computer and followed his directions to the

website and into the game's main interface. We met at a subsection of the game called "New Blockers City", and we had to choose occupations within the game, such as a subway driver, or police officer. David was eager to note how similar the graphics were to the blocky, low-fi world of *Minecraft*, but he also noted that *Roblox* features moving machinery, which *Minecraft* did not yet incorporate (Appendix).

For a few minutes, David and I struggled to locate each other in the virtual world. In the meantime, Charlie had joined our expedition briefly and easily found David's avatar long before I could manage to. After some hopping around between locations and resetting the system when a glitch froze my avatar in its tracks, I finally ran into David's avatar in the virtual *Roblox* world (Figure 5). We both had chosen the role of police officers, and I pressed a menu command that made my avatar do a backflip on screen. David was impressed that I was able to figure this out, and continued to offer his expertise about getting around the environment.

After a little while, I left the *Roblox* virtual world and David stayed behind. I decided to assist students who had come to me with a few questions regarding their collage activities. Charlie returned to working diligently to meld the rapper Ice Cube's face onto the body of a small white poodle (Figure 6).

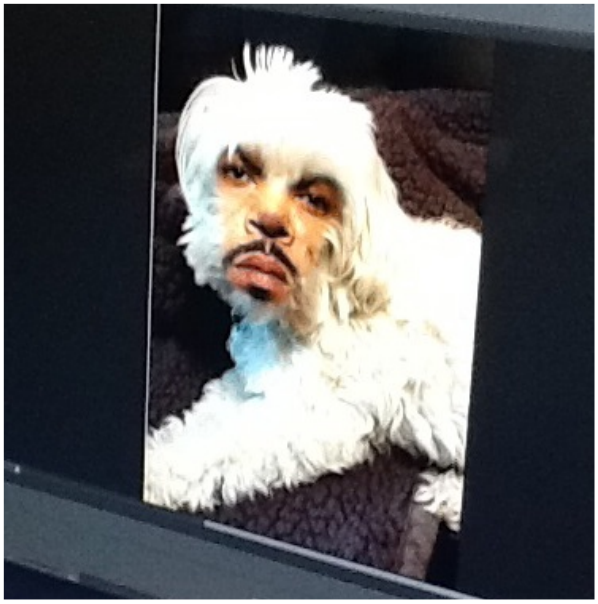

Figure 6. Charlie superimposes Ice Cube's face onto a poodle.

Kristin had been working to manipulate the background behind an image of herself and her brother, and she experimented with various exotic locations to drop in. Jon was cutting out King Tutankhamen's gold sarcophagus headdress to place around a yet-undetermined person's face, and Henry used source images from the television show *Breaking Bad* to play around with the various filter effects provided by Photoshop. Calvin had composed a surreal city skyline built from a number of different photographs. In most cases, the outcome of the activity for group members seemed to be more about getting comfortable with the software than creating a finished or refined work of art (research journal, February 15, 2014). I noticed Heather was creating something in a program I was not yet familiar with. I approached her to ask if I could take a picture of what she was working on (Figure 7). Heather explained that she had previously used a website called *Polyvore* to create her own collage compositions. The image she showed me was one of these images, and she pulled up the *Polyvore* website to show me how to find their collage making interface. She explained the the website was initially conceived as a way to explore clothing and fashion combinations, but that users quickly discovered they could create

interesting artworks using the same interface. As a result, *Polyvore* now encouraged this type of image making and supplied a library of found images for users to work with. In addition, any image used in the *Polyvore* collage interface was tagged with metadata that could tell any viewer where the original image clipping came from on the web. Heather tinkered around with various objects to demonstrate how it worked and admitted that she spent a lot of free time playing in this way (Appendix).

Figure 7. Heather's collage created on the *Polyvore* website

I continued to circulate throughout the lab, helping when needed and checking in with group members in general. I decided to take the opportunity to hold another conversation with Jessica regarding her video game of choice, *League of Legends*, in hopes of finding out more about this game as well. Jessica spoke to me about the game in a flurry of lingo and insider references that were difficult to keep up with. In this conversation, Jessica demonstrated an intimate knowledge of the game and her role as one member of a team (typically of five members) whose job in the "guild" was to perform a specific task. In her words, she often played

to support other players in a quest, as opposed to taking on one of the more flashy or action-packed roles in the group. Jessica said that she did not get much time to play during the week, but on weekends it was likely that she would spend more than six hours a day playing this game online with friends. It was clear that this site of visual culture was a central part of her life and a driving force behind the artwork she was creating (Appendix).

For the rest of the session, things progressed as usual. The work began to wind up, conversations thinned out, and at three o'clock, the group members said their farewells and started to file out the door once again. Reflecting after the room had emptied, I felt relieved that the turmoil from the previous week had been avoided, but also I felt concerned that the subdued feeling of the day's conversations and absence of some group members indicated a loss of interest in the workshop by group members (research journal, February 15, 2014). These were the immediate issues on my mind that I attempted to address in the following week.

4.2.5: Session 5: February 22, 2014.

Pre-workshop and warm-up. The cold snap of the winter seemed to have broken slightly when the day of Session 5 arrived. We were granted just-above-freezing temperatures in the week leading up, and the accumulation of snow had crawled to a stop. I began my usual prep work in the hour leading up to the session, and shortly before 1:00, David was the first participant to enter the computer lab. We sat and talked for a moment, before he logged back into *Roblox* to explore a reproduction of the famous Le Mans racetrack. Soon, Eva came in and settled into her usual spot in the corner as David and I were talking. She was eager to share with me some exciting news and explained that she was taking part in the 31st annual Insect Fear Film Festival being held that night on campus, promoted by the Entymology Graduate Student Association. In response to the year's theme of "pesticides", Eva had entered a piece that

responded to the use of a pesticide that was harming monarch butterflies. This non-digital illustration in colored pencil and marker showed "disintegrating butterflies" whose delicate wings were filled with holes and falling apart. Eva boasted that she has won an award for her work at this show for the past three years she competed, and she was hoping for a fourth. She also was looking forward to holding giant grasshoppers and seeing a film (Appendix).

Demonstration and work period. We talked a bit more about the University's entomology program and the event, and I waited for a few more people to show up before I introduced the daily topic. However, at a quarter past the hour, only 6 of the group members had arrived. I decided it was best anyway to begin, and so I introduced the attendees to Cubeecraft, a process for making custom-designed and foldable square desktop creatures out of paper from an open source template. I hoped to find something fun to introduce that would again encourage the students to experiment with the software available in a free-form way, but also I wanted to connect to interests they had told me about in previous weeks. Cubeecraft seemed like a natural fit as it clearly referenced the aesthetic of the game *Minecraft* in it's blockiness and low-fi design approach. I also hoped it would provide the group members with something tangible they could work towards and eventually have to keep. I also believed it would grant group members a certain amount of freedom in creating their designs, and that their familiarity with other painting and drawing programs would import easily into this activity, thus they would not be tethered to using Photoshop. I pulled up the workshop's blog to provide the group with links to the official website of Cubeecraft's designer and browsed through the gallery of pop-culture inspired cube characters that had already been designed by others. The group members present were entertained to find ones that they recognized, and they were eager to explain the origins of ones I was not familiar with, such as the game *Animal Crossing* and the cartoon *Adventure Time*. After

a brief discussion of some of these examples, I again demonstrated to the group how I created my own Cubeecraft character inspired by the book *Where the Wild Things Are*, and displayed the monster that was printed and folded, sitting on my desk. My demonstration was relatively brief, as I gauged that the present group members were all following easily and eager to get started on their own. With the templates provided online, students were then allowed to work on their own, either on this activity or on something self-directed. As this part of the session was underway, Allison entered the lab and sat quietly in her usual spot. I again used this time to circulate among the participants (though there were few) to assist and conduct informal interviews.

Samuel was working quietly by himself, without his usual partner, Jessica, present. I saw this as a good opportunity to talk more with him and to find out more about his interests in general. Up to this point, he had been quiet and somewhat reserved in our interactions, but I had hoped this was not a sign of boredom or disappointment with the workshop in general (research journal, February 15, 2014). Samuel explained that he was attempting to create a Cubeecraft character inspired by a character from one of his favorite video games, *Bioshock*. I was not familiar with this game and I asked Samuel to explain it to me:

> Samuel: Um, so it's this underwater city called Rapture, its kind of like Atlantis. And there's these guys in big suits called "Big Daddies", and you're a Big Daddy and you're supposed to save these little girls because they're like… there's this drug called "Adam" in it, and the city is falling apart. So there's like these crazy people that are overtaken by the drug trying to take these little girls…
>
> Brad: Is it violent? Is there a lot of fighting and stuff?
>
> Samuel: Uh, it's a lot of fighting. There's like guns and stuff.

We talked a bit more, and Samuel showed me some examples of "Big Daddies" that he had

found online, as well as some examples of in-game PSA posters designed to warn Rapture residents about the effects of "Adam". I thanked Samuel for filling me in about this game, and I urged him to let me know if he had any questions or issues with the design activity or in general.

A fair amount of my attention during this work time was granted to working and talking with Kristin. She had admitted previously that she was new to a lot of digital art making, but she had also exhibited eagerness to try new things in previous sessions. On this day, she had chose to create an elephant Cubeecraft figure, and she struggled to find ways to fit its' long trunk into the design of the template provided. I attempted to help walk her through some of the tools, but sensed some frustration from her. I assured her that she could always move on to something else if she got bored or overwhelmed, but I also said that I thought it was a good challenge. I did not want to be overbearing or bothersome in my help, so I continued around the room past David, who again was watching auto racing videos with his neighbor. I also checked in with Allison, who discovered Lego Build, a web-based construction app from Google that allowed a user to play with virtual Lego bricks and solve in-game puzzles. At this point, the room was quiet. Eva had put on headphones in her usual corner, and conversation was limited between members. I sat at my instructor's station and I took a moment to fill out a few notes in my journal, which is something that had been difficult in previous sessions due to the busy and active nature of my role in the workshop. I was troubled by the day's low attendance, and I worried that my fears the previous week were validated. It appeared to me that somehow the enthusiasm after the first few days had faded for many of the participants (research journal, February 22, 2014). A half-hour easily passed without much action in the room, and also without major conversation between the present group members. Kristin raised her hand, but only to ask if she could use the restroom.

I took the lull in activity as a chance to join David in *Roblox* once again. This time we met much more easily in the virtual world, and he showed me how we could pick a sports car from a lineup to drive. I had been concerned that David was not participating in any of the previous days' activities, but it occurred to me that for someone like David (whose mother informed me at the beginning of the workshop that he had been diagnosed with Asperger's Syndrome), this could be a useful activity and a valid way for him to explore his connection to digital media and its representations of real-world things (research journal, February 17 2014). I enjoyed letting him be the leader in this activity, and he instructed me about the nuances and controls of the game. David seemed to enjoy this opportunity to swap student/teacher roles and to share his interests first-hand with me. Upon meeting in the game, David took up the role of the teacher almost immediately. He took great enjoyment in pointing out various details within the game's environment that its' creators had put in place. He also seemed to enjoy it when I had difficulty keeping up with him during a race around the track. After a little while, it was clear that my deficits in this game were keeping him from doing what he wanted, and so we spent a few more minutes driving around the pixilated replica of "Circuit de la Sarthe" together and enjoying the virtual scenery (Appendix).

Making my way back to Allison's side of the room, I caught up with her as she worked through the challenge levels on the Lego Build app she had discovered earlier. This led to a discussion between the two of us regarding the various other apps Google had provided to users in the past. Allison's French teacher at school had shown their class a music-making chatroom that Google had previously designed, which reminded me of my own participation in Google's "Johnny Cash Project" several years previously. Allison had not heard of this project, and so I explained that it was an interactive music video where users from around the world used an

online painting interface to trace over and rotoscope[15] individual frames from a video in varying styles. The end result was a combination of the efforts of many people inspired by the musician's work. I also boasted to Allison that out of the thousands of people who contributed to the project, one of my own frames had made the director's cut of the video (Appendix).

This bit of information seemed to grab the attention of the others in the lab, and so I found the video and projected it onto the screen, and we all waited for the split second in which my frame would occur. This seemed like an interesting shift in attention for the group that I had hoped could open up an unplanned discussion, which was the kind of interaction I imagined when I conceived of the third space. I took the opportunity to talk about the recurring images and motifs that people around the world attached to the persona of Johnny Cash, and I noted how it was interesting to me that the Internet made such a unique project possible. Perhaps I should have prolonged this discussion for a bit, and in retrospect definitely should have invited the other members of the group to share anything interesting they wanted at this time (research journal, February 24, 2014). The room turned quiet again just moments after the video ended and we had all offered a few final comments. I circulated once again to check in with Eva in her corner of the room when it dawned on me that Kristin, who had asked to use the restroom twenty minutes earlier, had not yet returned. Concerned primarily for the safety of the student, I asked the rest of the group to stay where they were seated and I brought Eva with me to check the women's restroom while I scanned the immediate areas around the library and our lab. This disappearance worried me, and I pulled up her mother's contact on my phone and dialed. After a few rings,

[15] An early hand-animation process that involves painting or tracing over filmed footage frame-by-frame, originally created and used by animation pioneers Fleischer Studios to create realistic character movements and other motions that mimicked but distorted real-life images. Rotoscope has gained a resurgence of popularity in digital animation because of its ease, and is notably used in films such as *Waking Life.*

Kristin's mother answered and explained that Kristin had called home some time ago to say that she wasn't feeling well and would be coming home. Kristin's mother was not aware that I was not informed of this by Kristin, and she apologized for the confusion, although she did not seem especially bothered by her daughter leaving campus by herself.

Eva and I returned to the room. By this time, it was close to wrap-up, and the rest of the group members had begun to wind down on their work. I briefly explained that Kristin had become ill and gone home, but that she was okay, and I sat back down at my instructor's desk. We chatted quietly until it was time for the rest of us to go home. It was unclear to me what had gone wrong in the course of the day. I was troubled by the low turnout, the disappearance, and the general deficit in energy. I entertained the thought that perhaps it was simply one of those days in February where it is difficult to muster up enthusiasm about anything (research journal, February 22, 2014). After the last of the group members had left, I spent more time reflecting on the day in my journal. I wrote that I felt a personal responsibility to provide a rewarding experience for everyone in the group, which I was afraid was not happening. I made firm plans to turn things around for the next week, and I planned for more opportunities for students to share in the group, as well as ways to allow them to lead moments of discussion or discovery (research journal, February 22, 2014).

4.2.6: Session 6: March 1, 2014.

Pre-workshop and warm-up. In the days leading up to the next workshop session, I attempted to uncover more information about the recent drop in attendance. I had feared that these groups of peers who came together had suddenly decided to stop coming together for some reason, yet unknown to me. Some of these fears were allayed when I had received an email a few days later from the Henry's mother (Appendix). In this communication, Henry's mother

explained that she had noticed some frustration from Henry at home when she asked about his experience at the workshop, and that he explained to her that he was having some difficulty keeping up with some of the more complicated processes at hand. She also explained that their computer equipment at home was very old and that although Henry was an "A" student, he also had difficulties with dyslexia, attention deficits, and other learning disabilities. As a result, she requested that I provide fewer options or repeat some of the technical work more often for Henry as a way to help him keep up and stay interested in the group.

I was relieved to hear that I would be seeing these participants again, but I was also grateful to have had a parent initiate a dialogue with me about their child's experience in the workshop. During our interactions, it was clear to me that Henry was a newcomer to a lot of the processes we were trying out, but he had seemed to be able to catch on fairly well and displayed a positive attitude during difficulties. I wrote Henry's mother back and thanked her for contacting me with these concerns, and I assured her that I would do everything in my power to cater to Henry's needs. I also assured her that I would try to do so in a way that would not make Henry feel singled out. As a result, I planned to include more visual instructions on the blog for Session 6, and I made a note to check in with Henry and his friends more often during work time. I continued to check in with Henry's mother over the next few weeks, and I was pleased that she reported more enthusiasm in Henry regarding the group while talking with him at home. I also learned through our conversations that Henry's family shared one "out-dated" computer between 5 children, and that according to Henry's mother, nothing in the house was "top of the line" (personal communication, March 3, 2014). When Henry came to the workshop, it was therefore a valuable opportunity for him to gain uninterrupted time on the computer, and he was simply frustrated with how long it had been taking him to get the hang of things. I was thankful

for this dialogue, as it shed more light on the home context of one of the participants, and it also allowed me to refine my course of action in my interactions with this student in particular. It became clear to me that the value of the workshop for Henry was mostly in the structure provided by my guidance and "tricks", and so I made efforts over the next sessions to work closely with him, demonstrate the process first-hand at his computer, and keep clear instructions posted to the blog in case he needed to revisit them on his on.

When the Saturday of Session 6 had arrived, I felt as though I had done all I could to bring the workshop back on track, just as long as people showed up again. As I made my preparations in the lab, I jotted down a few notes in my journal about points I had wanted to explore further from previous weeks' dialogues with group members.

I was relieved to see a few of the regulars make an early appearance through the door, although the turnout was still lower than the first weeks of the workshop. Kristin did not return (and would not for the rest of the workshop's duration), but Henry, Jon, and Hector all arrived and found their usual seats. Charlie also returned, and he initiated a conversation with me regarding the collage he had been working on during a previous session and his attempt to turn it in for a school project (Appendix). Charlie complained that his teacher, whom he referred to as "Blas", would not accept the collage of Ice Cube and the poodle for a project she had assigned for her own class at school. Charlie said that she appreciated his work as "practice", but that he needed to do something different for her requirements. I speculated with Charlie that she was just trying to challenge him, and that she wanted to see what he could do during school hours (Appendix). Charlie then showed me the image he had turned in for his teacher (Figure 8). The new piece depicted a headless woman standing in the middle of a wooded area. I remarked that I liked it better than his previous work, and that it seemed to be more serious in subject matter.

Charlie still expressed frustrations that although he got a good grade, he hadn't quite done what his teacher had asked. In this case, expectations of "serious" school art seemed to be more important than actual project guidelines. Charlie explained:

> Charlie: Yeah, but I didn't even really follow the guidelines though. It was supposed to be like two photos and put them together. And it would be two things that didn't go together, but it's like, I didn't. So, I don't know, she said this would be fine because I did such a good job on it, but usually just putting a background in wouldn't count.

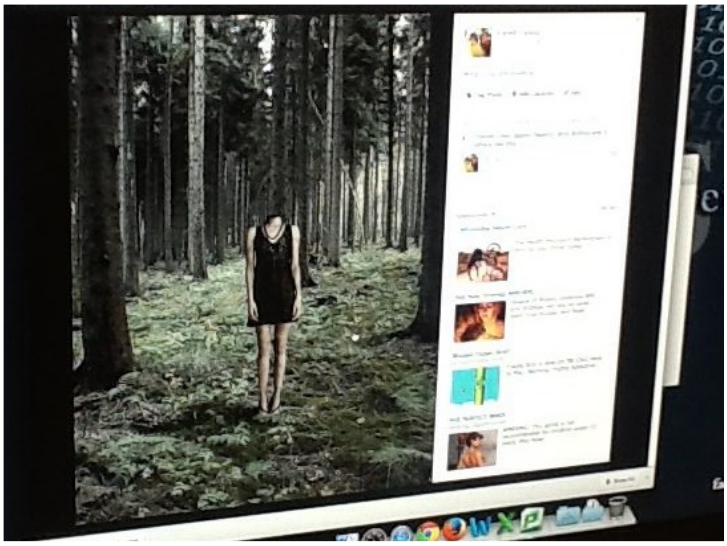

Figure 8. Charlie's *Headless Woman* (2014)

Although Charlie's image wasn't particularly gory or gruesome, it was surprising to me that a picture of a headless woman was more acceptable for school than Ice Cube's face on a dog, but I wanted to follow up on this issue to know more. I sent an email to Ms. Blaser after this session concluded to follow up on this issue, and she explained that another part of the project was to work in class, and that while Charlie's piece from the workshop was humorous, it was hard for her to assess it fairly without seeing him working in person. As a few more group members began to file into the room, I remarked that we were expecting another 8 inches of snow

overnight, and the room groaned. I mentioned briefly that we would be looking a bit at color correction for the day's topic, and waited a few more minutes to begin.

Demonstration and work period. This week, my plans for the prompted activity were scaled back even more. Instead of the complicated, multi-step processes I presented for group members in the early weeks of the workshop, I attempted to find ways to encourage open exploration of software like Photoshop. I continued this trend during Session 6 by focusing on the multiple ways to apply color correction and manipulation in the program, and I demonstrated to group members how to change the saturation, contrast, and exposure of an image, isolate colors found in the photo, apply gradient maps, use the color correction brush, and other ways to tinker with the color of an existing image. The students seemed excited about how easy it appeared to so drastically change the look of an image, and after my demonstration ended, they happily began to scour Google and their own personal photo libraries for source material. Once again, I took the opportunity to circulate and to interact with students one-on-one.

Over the course of the next half-hour, group members were busily experimenting with the Photoshop color tools on their own, and some amount of chatter returned to the room. I made my way over to Allison, who was sitting next to my instructor's station. She had found a picture of her flower garden at home that she posted on her Facebook profile, and she was tinkering with its natural colors. She explained that she had selected each flower and used posterization, saturation, and color shifting in order to make it look more like "fall leaves". I commented that I thought it looked more like a watercolor painting than a photograph at this point, and she agreed. When asked if she had worked with photo retouching on her own before, Allison stated that she often used the website Picnik to do similar things. I offered Allison a tip for how she could simply add a canvas or distressed paper texture to her photos to increase the "painted" effect, and she began

testing this trick out on her own (Appendix).

I continued to circulate around the room, and I found that David, Carson, and Charlie were able to load the web-based *Minecraft* on their workstations (Figure 9). David was exploring the landscape in "peaceful survival" mode, while Carson attempted to set up a server so the group of participants could play together in the game (Appendix).

Figure 9. David and Carson play *Minecraft*

Charlie and Carson continued to discuss how to get their *Minecraf*t server set up, and I continued to move around the room. David was running around a field of block virtual flowers, and Charlie had been using his pick-axe to dig square holes into a mountainside. Nightime had fallen in the *Minecraft* world, so David put out a few "glow stones" to light his way (personal communication, March 1, 2014).

I took the opportunity to spend more time with Henry, Jon, and Hector in their corner of the room. At this point, Jon was pulling more images from the television show *Breaking Bad*[16] from Google to manipulate in color. I questioned Jon if he was allowed to watch this show at

[16] A popular cable television show about a high school chemistry teacher who uses his scientific expertise to cook methamphetamine after he is diagnosed with terminal lung cancer.

home due to its complicated subject matter, and he insisted that it was his dad's idea to start watching it together. After a brief conversation about this show, I engaged Henry to talk about what he had been working on, which was an extreme close up of a reptilian eye. Positioned between him and Hector, I asked if they had anything specific in mind that I could help them learn, and I attempted to walk them through the various options for color correction, making sure they knew there were no right answers but that experimentation was the best approach. These students seemed to grasp the project much more quickly, and they were able to experiment on their own with more confidence after this exchange (Appendix).

The group continued working as I sat back down at my instructor's station for a moment to record a few notes in my journal and to gather my thoughts. The group as a whole seemed to be happy with the direction of the day's activity, and members were finding ways to apply the daily trick to their own interests and at their own speed. Nobody seemed to be too lost or frustrated with the task, and group members had been engaged in cheerful conversations with each other as they worked. I watched as Henry, Jon, and Hector worked closely together, and they shared tricks they had learned along the way. Hector had switched his attention to a black and white photo of Miles Davis, and was working to colorize his brass instrument gold. It appeared as if the productive dynamic of the group had returned, and although the group was still small in numbers, I felt encouraged that things were getting back on the right track (research journal, March 1, 2014). The usual patterns of work and conversation repeated over the course of the next hour. I announced to the group that if anyone wanted me to print their work out on one of our large-format printers at the art building for them, that they should email their file to me and I would be happy to do so in the following week. This seemed to encourage a bit more sharing of digital files between group members and myself, and I regretted not employing this

tactic earlier in order to gain access to student work. As the session began to wind to a close, I sat with Henry, Jon, and Hector, and we talked informally about movies, prompted by an image from the film *Pulp Fiction* that Jon was presently tinkering with. The conversation turned to the violent and obscene nature of the movie, and whether the subject matter was a problem in Jon's household.

> Jon: It was kind of my dad's idea too. He's always saying movies we should watch. He had the CD of the music, and was like "We should watch the movie".
>
> Brad: I guess that's fair, I did see that movie when I was your age, and I turned out ok.
>
> Jon: Yeah… he doesn't really care about that stuff. We also just watched *Django Unchained*, which was pretty good. (personal communication, March 1, 2014)

For a few moments, Jon and I discussed our favorite movies and I shared a few photos from my recent trip to a Stanley Kubrick exhibit in Los Angeles. Soon, Session 6 of the workshop was officially called to a close, and the participants and I said goodbye as they filed out the door.

4.2.7: Session 7: March 8, 2014.

Pre-workshop and warm-up. Recharged somewhat by what I perceived as some minor victories in last week's workshop, I was looking forward to picking up things up where we left off for Session 7. With just a few meetings left, I felt a lot of pressure to make sure I was collecting enough data, but also to ensure that the third space I had attempted to put in place was offering positive rewards for the workshop participants. I was optimistic from what I had previously observed that, at least in certain moments, the workshop was a positive experience for most of the returning group members. By this time, I observed major developments in the abilities of the novices, and I also saw sustained interest by some of the group's clear leaders. I unpacked my things once again at my seat in the computer lab, and I waited for the group

members to arrive. Jessica shared with me her progress on a ceramic project for her school Crafts class, which she had chosen to make into a "stone tower and castle". She explained that her friend Samuel from our group was also in this class and had made a squid sitting on top of a rock. I was curious to know what types of art courses were offered at her school, so I asked Jessica to list them for me. From the top of her head, Jessica was able to recall Drawing and Painting 1, Drawing and Painting 2, Basic Design, Jewelry, Graphic Design, and Crafts. All of these courses (as well as the 3D Animation course previously mentioned by Charlie) were taught by the school's only art teacher, Ms. Blaser. Jessica emphasized that Crafts was her current favorite class (Appendix).

Eva also returned after a week's absence, and I wanted to follow up with her regarding her entry in the art show she had previously spoken to me about. She excitedly informed me that her artwork had won best in show, and she had been awarded with a certificate and a "big pretty purple bow" (Appendix).

As the rest of the students filed in, I said hello to Heather and told her we would be doing something painting related in Photoshop today, per a request she had made in a previous week. As we talked, other group members decided to voice their opinion a bit more about what they wanted to learn during our last few weeks together. Hector expressed an interest in doing some sort of special effects video project, and others still wanted to do some kind of game design activity (research journal, March 8, 2014). I was wrestling with how to deal with the subject of gaming in our workshop. I enjoyed talking with the group members about their interests in this subject, but I was unsure, given our limited resources, if there was any way we could produce anything video game related. I reminded them that this wasn't really my strong suit, but reiterated that if they could find a good introductory tool for us to explore on the machines, they

would be free to play around and teach the rest of us something about what they're finding. This, I hoped, would reinforce my previous efforts to occasionally remove myself from the instructor role, and to allow other members of the group to share their own insights and discoveries (research journal, March 8, 2014).

Demonstration and work period. The group was slightly more talkative than the previous week, and it was difficult to find an easy transition between our usual warm-up period into the demonstration of my daily trick. The weather outside was slowly thawing, and the room seemed to be a bit livelier as a result. However, I was eventually able to direct the group's attention to the overhead screen and I began to introduce the most recent trick. As I mentioned, Heather previously expressed an interest in doing something with digital painting. Although we had difficulties in getting digital pen tablets to work with our computers, I found a simple technique that could be used easily with a mouse to create an oil-painted look from a photographic image. I pulled an image of Nicolas Cage from the Internet, and loaded it into Photoshop. Showing group members where the smudge tool was located, I then explained how to change the size, the shape, and the strength of the brush they had chosen. I then demonstrated how playing with these settings, while tracing the countours of the face with the smudge tool, could quickly create streaky and expressive brush strokes from the original photo. The group seemed to be intrigued by this process. I explained a few traditional painting principles, and I noted that for broader areas like the forehead, a larger brush usually worked well, while a smaller brush created the best results for detailed areas like the eyes. I then reiterated that we could use last week's technique of color correction to give it an amber, more antiquated color scheme and overall look. After just a few minutes of demonstrating this technique, most of the group members seemed ready to move forward, and so I set them free to work on their own.

Figure 10. Heather digitizes and adjusts her group's logo in Illustrator

I was pleased with how many of the attendees were jumping into experimenting with this process, and they seemed invested exploring the tool on their own (research journal, March 8, 2014). Heather, on the other hand, brought in some sketches for a project from school that she was hoping to scan and use Illustrator's Live Trace feature to sharpen the image up (Figure 10). This project was for a business class, which assigned students to create rival cookie businesses to compete against each other on an upcoming day to get the most customers. Heather was in charge of her group's business's logo and design, and hoped to impress her peers and teacher with a good product (personal communication, March 8, 2014). I briefly walked her through how to use the flatbed scanner in the corner and let her continue her work.

While other group members were working and I circulated as usual, an interesting conversation occurred between myself and Jessica regarding her choice of an image for the activity. Instead of using a portrait like I and most other participants had used, Jessica was working from a landscape photo of Japanese lanterns floating in a body of water at night. She had previously drawn from pictures of Tokyo and other locations that she said she would like to visit one day, so I was curious as to why she seemed drawn to this subject matter. This led to an

interesting conversation between the two of us where she articulated her thoughts on being "American" and expressed disdain for that aspect of her identity (Appendix). She explained that she wished she had been born in any country other than the United States because other places had "weird, interesting cultures. She complained that the people she seemed to encounter in her small town and surrounding areas were "Muricans"[17]. It appeared to me that Jessica's access to the visual culture of other geographic places and people gained through her gaming and image consumption online operated as a way for her aspirations and curiosities about other identities, cultures, and ways of living to be played out.

I continued to circulate and I decided that it was a good time to check in on Henry, Jon, and Hector in their corner. Henry was diligently working, and after I received feedback from his mother a few weeks prior, I decided to spend a little more time working with him to ensure he wasn't feeling lost or frustrated. Henry's work today looked impressionistic and caught my eye as more sophisticated that his usual work. After a few pieces of advice, Henry seemed to be getting the hang of this process fairly easily and intuitively, and he appeared to be applying a knowledge of conventional painting to his work in the software. He understood, somewhat intuitively, that adjusting a brush's strength would allow it to "pull" more of the pigment across the canvas, and how to trace the contours of the face to create depth from brush strokes. He explained that these were things he had worked with before when dealing with acrylic paints (Appendix). I felt after this conversation that Henry certainly seemed more confident in the process at hand, and I was glad to know more about his background with other traditional art-making processes that I could appeal to in the future.

[17] "Murica" is a slang term of resentment for America that is occasionally used online, typically in image-memes and conversations that mock extreme patriotism or right-wing ideological positions on gun rights, religion, and so on. It is usually spoken with a stereotypical southern American or "redneck" accent for effect.

I gave Eva similar advice when she called me over for feedback, and I attempted to draw connections between what these students already knew about traditional painting and the new subject of digital painting. The group members' quiet concentration shifted into active discussion when Henry and I began discussing superhero movies, a conversation springing from his selection of an image of the "Incredible Hulk" character for his digital painting. This led into a discussion of superhero video games, and consequently video games in general (personal communication, March 8, 2014).

After the group had worked for an hour or so, I felt that it might be useful to take some time to allow an informal discussion about the subject of video games. In the previous week, I had seen a few YouTube videos of a new virtual reality gaming headset called the Oculus Rift that I thought would be interesting to share with the group, and I thought we could spend a little time simply talking about it and viewing a few videos. Carson agreed that he had recently heard about this device as well, but none of the other serious gamers were familiar with it. I found a video of a user wearing the headset "riding" a simulated rollercoaster, and I projected it onto the screen for the group. The group watched the video intently, which showed a split-screen of a group of kids wearing the headset on the top, and a representation of the input they would see through the headset on the bottom. The headset itself is composed of stereo headphones and an LCD screen for each eye, each projecting a slightly different perspective of the virtual environment from the gamer's perspective. Judging from the extreme bodily reactions and losses of equilibrium experienced by the users in this video, this simple approach is enough to trick the mind into experiencing the input as truly 3-dimensional. At the time, the Oculus Rift was only available for developers, who were creating and sharing original creations for the Rift as well as older games ported into the 3D headset (Appendix).

The group watched in anticipation as the girl wearing the headset glanced around with the headset on, explaining how realistic the height of the rollercoaster felt. As she reached the top of the climb, the rollercoaster car plummeted down a steep fall, and the girl wobbled humorously as her balance was disturbed. The group erupted in laughter watching this unfold on-screen.

Prompted by this video, the room came alive with conversation regarding what types of games would be best for the Rift, and what types of environments or simulations they would want to create for the device if they had the capabilities. Others scoured YouTube for more videos to see what people were doing with the technology. During this time, the students were enthralled by a video of another user playing *Skyrim* using the headset, but also walking and running in place on a customized treadmill style motion controller, and pantomiming the action of shooting a bow and arrow with his motion-sensitive Nintendo Wii remotes. This full sensory immersion into an open-ended fantasy game like *Skyrim* seemed to be an exciting idea to these students, as it would offer them a way to more directly fill the shoes of their favorite heroes and game characters. Carson suggested that the parkour-themed game *Mirror's Edge* would be fun to experience in virtual reality, as it requires the user to leap between rooftops and scale dizzying heights in a realistic cityscape. Jessica excitedly imagined being able to wander freely around the grounds of *Harry Potter*'s Hogwarts or participate in a game of quidditch (Appendix).

This had really gotten the attention of the group. Even if we couldn't be programming for this platform, the group members were excited to be considering the possibilities for technology such as this. Charlie shared games like *Slender*, a horror game based on a popular online urban legend of a murderous "Slender Man", which used the Oculus Rift's immersive effect to make users feel as though they were being followed by the titular villain (research journal, March 8, 2014). In the video we watched of this game, the user appeared walking through a wooded area,

and reported hearing footsteps and noises following and surrounding them in the headset's 3D audio field. The user lost the game when they could no longer resist the urge to look, and as they turned their head, the Slenderman character sprang onto the screen to attack the gamer. We spent most of the remainder of the session watching videos like these and talking about this new trend in video gaming. I felt as though this was a constructive and enjoyable conversation, and it seemed to engage the group in a way other discussions hadn't. Some of the attendees slowly started returning to their work for some finishing touches, but for the most part, conversations about the Oculus Rift continued until the room had emptied at the end of the day.

I had a feeling that the day had been a success for many of the students, and I was optimistic that they had left the workshop energized with new ideas. This, I felt, signaled a turning point in my own thinking about the workshop, and it reinforced the idea in my mind that learning in this third space did not necessarily mean producing finished artwork or following my pre-determined agenda (research journal, March 8, 2014). I began to realize that informal moments that seemingly had sprung out of nowhere, like our Oculus Rift discussion, held the potential to inspire lively discussions and energized minds.

4.2.8: Session 8: March 15, 2014.

Pre-workshop and warm-up. Jon was wearing shorts when he entered the room with Henry just after 1:00 on the Saturday of Session 8 of the workshop. It had begun to feel like spring outside, and we had been rewarded the previous week with a massive upward swing in temperatures. As a result, spirits seemed to be high in the computer lab. Discussions about the upcoming spring break and Saturday plans occurred between group members as they arrived and settled into their seats.

During these first few minutes, the students warmed up as usual and were occupying

themselves as they waited for me to introduce my daily trick. David was excited to share with me a video he had found online of another gamer testing a track on an upcoming auto racing game. Eva had already placed her headphones around her ears and was scrolling through a Tumblr page. Heather and Calvin were also sitting quietly with each other at their usual spots, and they were talking over a few images on Heather's computer screen (Figure 11). I asked Heather about these images, and she informed me that they were a set of Photoshop collages she had created, and that she was trying to choose which ones to enter in an art show. This art show, in a nearby university town, was something her teacher encouraged some of her upper level students to participate in (Appendix). Her work was high contrast and surreal, but also seemed to me to be sophisticated and well-designed. One abstracted cityscape bore the words "Scary world out there." She shuffled through a dozen or so images she had created in an attempt to select three. This was an enterprise that she clearly spent a good deal of time on during her free time. Heather and Calvin went back to discussing her decision as I walked around the lab to check in with other group members.

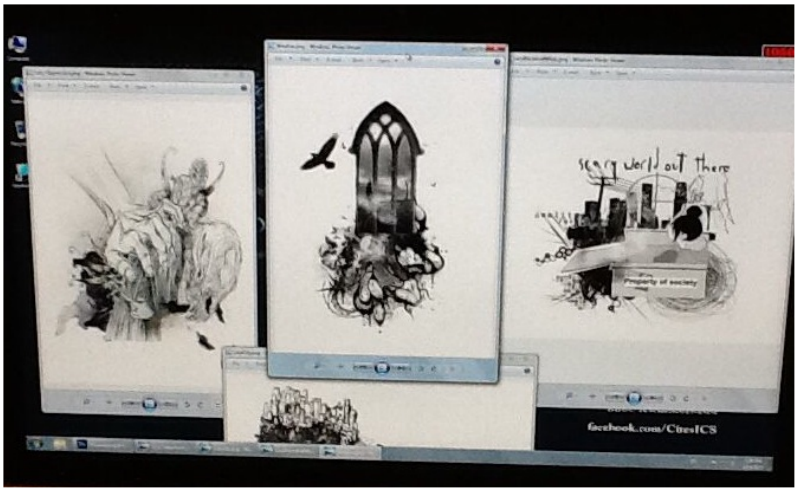

Figure 11. Heather's potential art show entries

Demonstration and work period. After a few minutes, I sensed that everyone was ready

to move forward, and so I decided it was time to introduce my trick of the day. Hector had mentioned that he was interested in special effects the week prior, and I felt that this was a good opportunity to leave Photoshop behind for a while and try something different. I was hesitant to get into complicated video software like Apple Motion or After Effects, and so I spent some time throughout the week leading up to Session 8 researching fun and easy things beginners might be able to do with iMovie. In my previous experiences of teaching video production, I found that iMovie was fairly intuitive to use for beginners, and it was a non-threatening platform to learn with. After some playing around on my own, I was pleased to find a way to exploit iMovie's green screen capabilities in order to "clone" a person on screen. I had checked out some video cameras and tripods from the Media Commons for the day, and I had taken some time earlier on before the session to create my own simple example of two "clones" of myself passing each other on a stairway in the library. I showed this example to the group, and they reacted with interest and curiosity in how the effect was achieved. I demonstrated how I started with footage of the stairwell as a background with a camera on a tripod and explained how I walked through the frame two times. The first time I walked up the right side of the stairs, and the second time I walked down the left side, and I made sure not to cross over the imaginary center line of the frame. I then showed the group how to drag and drop one of these clips onto the other and how to select the "green screen" effect, which superimposed the two clips on top of each other. A simple adjustment with the built-in masking tool split the clips down the invisible center line and made the final product look like one seamless shot. Henry and Jon had seemed especially interested in this process and, when the demonstration ended, they were the first pair to grab a camera and set out to create some footage of their own clone.

Figure 12. Allison creates her surreal skyscape in Photoshop

As Henry and Jon were out shooting, I had a chance to hold a few more informal conversations with the few group members who had stuck behind to work on other activities. Charlie was browsing the Internet fairly aimlessly and tinkering with Garageband once again. Allison was piecing together another collage project in Photoshop, this time an image of a surreal starry night-time landscape (Figure 12). After some brief conversations, I sensed that the group members still in the room were content to work quietly, and so I decided to let them be for the moment and sat down at my workstation. I took the opportunity to write down a few notes regarding the day's events in my journal, and then I pulled up a design project I had personally been working on. I consciously left my screen projected at the front of the room in hopes that this would provide students with a way to watch my methods of working without being too heavy-handed about it. I hoped that this type of modeling would rub off in some way, or at the very least the group would notice me using a trick they had not seen before. Before long, Calvin and Heather returned to the room and they explained that they had failed to find inspiration for a video and decided to work on something else for the day. Jon and Henry also returned, but they

were having issues with the data card in the camera, and so I sent them back out with another camera and card to work. The group members seemed quiet but content as we all worked independently for the next few minutes (research journal, March 15, 2014).

After a little while, Henry and Jon returned, and Heather and Calvin decided that they wanted to take another shot at the cloning project. The two groups handed off the cameras and went on their respective ways. I helped Henry and Jon import their footage into iMovie and stuck around with them for a few minutes while they got comfortable with the iMovie interface. Henry seemed to follow the process easily, and Jon mostly watched Henry work and offered his feedback on what looked best (research journal, March 15, 2014). Henry and Jon told me they were okay to work without my assistance and so I went back to circulating around the room.

After a few moments, Eva called me over to show me something she had been doing on her computer (Figure 13). On her screen, she was watching a live stream of her friend Elise's computer screen as Elise worked through a digital illustration. Eva herself was not doing any drawing, but instead she was enjoying watching her friend draw and chatting back and forth. Elise was illustrating a stylized anthropomorphic figure that appeared to be part antelope and part human. Eva informed me she thought it was something inspired by the game *Animal Crossing.* Eva spoke about how she learned from observing her friend's "talents", and she clearly held Elise in high regard as an artist. Eva boasted that the work we were watching develop was a commissioned piece, and she also informed me that Elise owned a much higher end Wacom tablet than she did (Appendix).

Figure 13. Eva watches Elise draw via livestream

We talked for a while about the tablets we each had, and the subject turned to the tablets she had access to at school. Even though I had attended the same high school as Eva, I was uncertain about the school's current art facilities, and so I was eager to find out more and pursued a new line of questioning. Eva informed me that "Mr. S" (her expression) was her favorite teacher, but that he rarely made use of the tablets that the school's art department owned in his teaching. She explained that the art room was now outfitted with computers, but that these were most often used for researching reference images. Eva reported that Mr. S had previously offered one digital arts course, but she only remember learning how to "make a donut in Photoshop". I assured her this was still a step up from the types of digital art I was able to learn in school (Appendix).

I left Eva and Elise's virtual drawing session to check in on Calvin and Heather, who had recently re-entered the room with their footage and had settled back into their workstations to edit. Calvin explained to me that he wanted to try Adobe Premiere instead of iMovie, and was attempting to teach himself through the interface by way of the cloning activity. He was having some difficulty dealing with some minor issues, but after neither of us could find a solution, he

insisted that he would likely consult Google for the answer (Appendix).

By this time, Henry and Jon had decided to go back out with the cameras and make another run at the cloning project. This activity seemed to be resonating with them and was something they enjoyed tinkering with, especially Henry. I was happy to see him become more proactive and come out of his shell, and I was again thankful that the dialogue with his mother seemed to help me make the workshop a better experience for him (research journal, March 15, 2014). The class quietly resumed working as music played in the background and some small talk between desks peppered the room.

The group worked fairly quietly for the rest of the day on whatever was holding their attention. Although this session was relatively quiet, I reminded myself in my journal that my expectations for the workshop to be lively and dynamic at all times were perhaps unrealistic. Over the ups and downs of the past few weeks, I began to realize that the workshop, while my project at the start, really should belong to the group, and that my sensitivities over whether or not they were engaged with my ideas were not all that important (research journal, March 17, 2014). I instead looked for signs of engagement and excitement wherever they were occurring.

As the group members began to wind down their work at the day's end, I reminded them to send any images they wanted printed to my email, and I also made clear that our location would be changing for our final meeting. Because the University was officially out of session for spring break during our final Saturday, our usual lab at the UGL was closed. However, the Media Commons had provided us a new location in the English building with similar resources that would be open during the break. As the students filed out into warmer weather, we all looked forward to the walk outside for once.

4.2.9: Session 9: March 22, 2014.

Pre-workshop and warm-up. Although I had sent out emails to the parents on my roster to remind them of the change in location and I had passed the information along to students at the last week's session in person, attendance on the last day of the workshop was light. At ten minutes after the session was to meant begin, only David and Charlie had made their way into the lab. We conversed for a moment about whether or not others were having trouble finding the place, and Charlie mentioned that he had seen Calvin and Heather walking on another part of campus as he was arriving. I asked the two attendees to stay put while I went up the stairs outside of the lab to look for signs of other group members. As I stepped out to the quad, I noticed Heather and Calvin walking in my direction down the path. I stepped out further onto the path and waved in order to signal to them where we were meeting. They explained to me that after entering the address of the English building into their phone, the map application had sent them a few blocks north, past the Student Union building at the edge of the quad.

I showed them the stairway that lead down to our lab, and told them to go on inside while I looked for others for a moment. Before long, Henry, Jon, and Hector had come around the corner from the same direction, and they explained that they had the same issue finding the building. As we made our way back into the lab together, I sent out another quick email to parents on my phone about the confusion in hopes that this would reach anyone else who was wandering around campus. The group in attendance on this day was small, but I was aware that many of the group members would be absent due to spring break travel and other activities. After a few moments, I decided to get started with the final day's demonstration of the daily trick. I had not been quite sure what to prepare for the group in the days leading up to the final session. Early on, the Media Commons suggested that I hold some sort of exhibition of student work.

However, it was my impression as the workshop unfolded that the group members never really intended for much of the work they were producing here to be shown in any serious way to others. Instead, it appeared to me as though the products of the workshop were more aptly described as artifacts of play, or the crude physical evidence of a learning process (research journal, March 17, 2014). We also discussed wrapping up the workshop with an open-form video gaming session in the Media Commons' game center. This facility housed a number of televisions and gaming consoles, but unfortunately was closed with the rest of the UGL, along with our usual computer lab. As a last resort, I decided to somewhat unceremoniously keep the status quo, and I chose to provide one more prompted activity to those who were able to attend. I hoped that this would still end the workshop on a high note.

Demonstration and work period. I called upon everyone to gather around my computer while I pulled a handful of cardstock glasses with red and blue lenses from my bag. A few of the students recognized this as an old-fashioned way of seeing 3-D images, and I explained that I would be teaching them how to create their own through the anaglyph[18] method. Charlie joked that he picked the wrong day to only wear one contact lens (Appendix).

I pulled up a simple Google search for anaglyph images and showed a few examples that other people had made before showing my own examples that were posted on the workshop's blog. To grab David's attention, I had created one of a sports car and I talked about how I had created the effect by separating the image into layers. I explained, in short, that the first step is to isolate a shape that you want to pop out from the background. Since the car was really the only

[18] Anaglyphic 3-D works by superimposing two perspectives of the same image (one rendered in red, the other in cyan) on top of each other. Corresponding colored filters in eyeglasses tricks the brain into merging these two perspectives into a stereoscopic image. This old-fashioned technique was used in the 20th century for most 3-D movies and media, but it has also seen a recent resurgence among amateur media creators online.

object in the frame, this step was fairly easy using the magnetic lasso tool. To make it pop out, I explained, one simply created two duplicates of the image, and used the color channel mixer tool to make one only red, and the other only cyan. Then, by using the move tool and nudging each layer horizontally an equal number of steps in opposite directions, one could make the image appear to recede or jump out of the image when viewed through the special glasses. I showed a few slightly more complicated examples I had created with this process, and then I let the group members get started making their own or work on something self-directed as usual. The group members grabbed their glasses and settled into computer stations in the new lab.

I spent the next few minutes circulating around and again examined the types of images that the students were selecting as their source material. Henry, Jon, and Hector were busily searching Google for their usual favorite subject matter, including popular movies, superheroes, and sports or music figures. Calvin was using a photo of himself and Heather, who were sitting together and smiling on a wooden bridge. Heather pulled up the website Polyvore that she had shown me a few weeks before, and she was once again playing around with its collage feature. As I made my way to Charlie's computer, I noticed that he had logged into *Minecraft* and that it was rendered in anaglyphic 3D. He informed me that he had found and imported a "mod" for the game that allowed it to be rendered in a variety of anaglyphic color profiles. However, he complained that it gave him a headache. Charlie joked that he had recently experienced a sensory "mix-up" when playing a handheld game and walking through a door, in which he physically jumped backwards when confronted by a surprise enemy in the game. He speculated to me that the novelty of the Oculus Rift might wear off after a while, and that such immersion in a game might have downsides (Appendix).

Charlie and I talked a few more minutes about trends in 3D televisions, video games, and the other anaglyphic images and videos we had stumbled across as we both Googled for other information together. It was good to have an extended conversation with Charlie on the last day because I was worried that he was disappointed that many of his closer friends weren't present over the previous few sessions. However, he seemed in high spirits and he was eager to talk with me (research journal, March 22, 2014).

I continued to circulate around the room, and I checked in with David, who had once again been watching racing game videos. I had a brief conversation with him about what types of cars they were and where the racetrack was, and he was happy as usual to tell me as much as he knew. I noticed Henry had raised his hand, and so I excused myself to see how their group was doing with their anaglyph images. By this time, I had been incorporating much of Henry's mother's feedback into my instruction. When Henry needed assistance, I now attempted to walk through the process with him slowly, to break the task into smaller steps, and to demonstrate the issue side-by-side with him as to allow him to take in the process visually and haptically (Appendix).

Henry continued working away with this photo, and once it was done he looked for more images that he could apply the 3D effect to. Meanwhile, Hector needed similar help and instructions as he worked with a photo of a downhill skier set against layers of mountains in the distance. Jon had been working from a photo of the Statue of Liberty (Figure 14). I helped each of them become familiar with the process one-by-one until they seemed comfortable and said they understood, and I continued to circulate around the room.

Figure 14. Jon renders the Statue of Liberty in anaglyphic 3D.

When I made my way back over to David's computer, I decided to follow up with him about his interest in racing games, and I asked him about some of the videos he was watching. He explained that he was currently watching a demo of *Ridge Racer Unbounded*, which he liked for its ability to let users "smash through" buildings and scenery. David estimated that this was one of roughly a dozen racing games he owned at home, but he had difficulty providing me with an approximate amount of time spent playing these games at home. Although he admitted that he spent "a lot" of time racing, he claimed he rarely had time during the week (Appendix).

I spent a little more time with David watching videos from the game, and we talked a bit more about his Playstation 3 and PC gaming at home. He appeared to derive a great deal of joy from telling me about these details, and it was clear that gaming really was an important activity for him. In our group, it definitely was a shared interest through which he could reach out and socialize with other members of the group.

The rest of the session seemed to go by incredibly quickly. The attending group members had been working diligently, and we were able to have a few conversations about their thoughts on the workshop when I wasn't assisting someone with a specific problem. Much of the feedback

I received was positive, and the group members were happy to tell me which things we did that they thought were the most fun. A resoundingly popular response from the group members was that they had been given the freedom to explore new software on their own. However, Henry, Jon, and Hector all stated that they were happy to have received prompted activities like these because they were new to this type of work and would otherwise have had a hard time knowing where to start. (personal communication, March 22, 2014). Charlie stated that he liked being able to spend time talking and playing games with others who were interested in the same things.

> Charlie: We don't really get to talk about stuff like this at school. It's a totally different mood. Blaser is cool and everything, but we would never play *Minecraft*. It's just not something you'd do at school. (personal communication, March 22, 2014)

For the remainder of the session, I bounced between tables assisting and interviewing, and group members eagerly showed me their completed work from the day until it was finally time to go. As we said our final goodbyes, I thanked the group for their efforts, and many of them thanked me on their way out inquiring about whether there would be another workshop. I told them that I hoped so, and that I would be in touch if it happened. The group was cheerful as they filed out for the last time, and I sat for a moment to collect my thoughts and reflect on the day in my journal as usual. We had officially made it through the winter, and I climbed out of our underground lair into spring.

Chapter 5: Analyzing the Third Space

In this chapter, I will inform my study of the DigArts workshop by responding to the literature I have presented in Chapter 2. This literature served as a foundation for my research, and it provides a survey of what has been argued in the areas of the third space, digital visual culture production and consumption, and the tensions that arise when connecting Art Education to these issues. In the analysis of my data, I both confirm and dispel a number of existing ideas surrounding these central topics in terms of the events of the DigArts workshop.

5.1: Tensions of the Third Space

The major issue at the center of this study is the idea that the third space can also operate as a constructive place of learning. To support this understanding, I drew upon Wilson's (2003; 2008a; 2008b) applications of third space theory to the field of Art Education. I began with the understanding of the third space as a liminal place of conflict, interaction, and mutual assimilation between conflicting communities, typically between the less-powerful and the more-powerful (Bhabha, 1994; Wilson, 2003). While this quality of conflict is acknowledged in certain sociocultural examples cited by Wilson and Bhabha, the literature of third space pedagogy within the field of Art Education appeared to me to have paid little attention to the dangers and tensions that are present when conflicting systems of power meet in the third space. Even in the case of teenagers, I believed that the third space would likely be a place where conflict would be a significant factor, and I hoped for this study to investigate this concept in more detail. Some arguments for third space pedagogy in Art Education are grounded in the idea that within liminal spaces, new hybrid cultural productions emerge, which provides a suitable analogy to the artistic process (Wilson, 2003, p. 120). Wilson argues that the third space in Art Education is "inclusive rather than exclusive", embraces ambiguity, abnormality, and opposes structure (p. 120).

Furthermore, Wilson argues that third space learning might subvert the typical student/teacher dynamic and allow both parties to meet more like "colleagues" (p. 128). This friendly notion of the third space is also advanced by Staikidis (2006), who describes how an informal lunch-time drawing club allowed students and their teacher to commune over popular culture sites like superheroes to discuss the more complicated issues beneath the surface. The notion that teachers and students can meet in an informal setting, share popular interests and subject matter, and learn about difficult things is an encouraging one. This section of my analysis will attempt in part to confirm the arguments of third spaces theorists who believe that such a cooperative model can and does create new pathways to learning outside of traditional classrooms. However, throughout the course of this study, I remained aware that the concept of the third space is one that can be traced back to notions of conflict, danger, and revolution. For this reason, I will also discuss the tensions and conflict that accompany the third space learning of teenagers, and how the third space of DigArts might become understood as a discourse of dissent in line with Bhabha's (1994) third space.

When using the term *tension*, I refer to the relationship between conflicting ideas or values, particularly those that signified differences in the ideologies and attitudes that surrounded digital art and visual culture in the third space of the DigArts workshop. In order to identify these tensions, I drew upon my understanding of the third space as an environment characterized by conflict, where opposing systems of power and ideology meet (Bhabha, 1994). In addition, I analyzed the visual cultural underpinnings of many of the artifacts that students produced, consumed, and shared throughout the course of the workshop, which further helped to identify sites of tension in the third space. To guide this chapter, I have categorized the tensions that arose through the analysis of this study into 1) tensions regarding the structure and anti-structure

of the workshop 2) tensions concerning the social dimensions of the workshop, and 3) tensions of pedagogy experienced between myself and these participants across formal, informal, and third space learning contexts.

5.1.1: Tensions of Structure and Anti-structure. There were many important tensions that arose from the structure of the DigArts workshop and its' connection to the University. From the beginning, the DigArts workshop served as a site for the transaction of contesting ideas about learning, and many of these conflicts were natural developments of working in conjunction with an institution of formal learning, as well as within a limited physical space.

Negotiating structure and anti-structure. In my efforts to facilitate the DigArts workshop, I encountered a number of tensions that occurred well before the workshop officially began. When designing the third space of the workshop, I was able to come to a greater understanding of Wilson's (2008b) description of the pedagogical third space as a relationship between structure and anti-structure. According to Wilson, the structural side of a third space environment reinforces modes of learning and ideologies about visual culture that are more in line with "ordinary" formal learning, while the anti-structural side represents a separation from ordinary pedagogical order. I had initially conceived of the DigArts space as much more informal in nature. I had hoped for a space where students could come and go as they pleased and where no formal curriculum was established. However, when attempting to set up a third space environment in conjunction with a major institution of learning, certain tensions arose. I quickly learned that certain structural measures needed to be in place in order to satisfy institutional requirements. The first structural challenge I met was encountered when attempting to find access to technology for students to use. University policies are strictly adhered to when it comes to accessing computer labs on campus, and it became evident to me that even the

computer labs in the Art and Design Building would not be available for the workshop to use. Because I had practically no budget for this project, I looked to other places on campus that would be willing to provide access to computers and other resources. I was pleased to have been put in contact with the Media Commons as a solution to this problem. Our partnership in the workshop was an overwhelmingly positive experience for me, although certain tensions arose when negotiating just how much structured learning the workshop should ideally provide for participants. I saw this conflict as a relevant way to understand the educational goals of the institution in relation to what I had conceived the goals of the third space.

When I first met with the Media Commons team to discuss my project, they were hesitant to agree to host a workshop without any clear boundaries or daily agenda. Instead, they suggested that I provide some guided activities for the participants with the workshop that would potentially culminate in the form of an art show. Their reasoning for these stipulations, as they explained to me, was due to a desire to have tangible artifacts that demonstrated the value of the workshop to the public. The Media Commons was hoping that our partnership would provide them with visibility in the University system as a valuable resource for technological learning, and would also reach outside of the campus into the surrounding communities (personal communication, November 12, 2013). I agreed to these terms, and was happy to have found a place to host the workshop and access any tech resources we might need. It became clear to me over the course of the workshop that the possibility of cobbling a show of student work together was not likely to succeed, as students typically seemed to consider our space as more practice than product oriented. However, I kept the director of the Media Commons informed of our weekly activities and shared photos and images of student work whenever possible, which he informed me would be of great help in his presentation at a conference about the Media

Commons' outreach efforts.

In order to adhere to the second half of our agreement, I reinterpreted the idea of presenting a lesson in a more informal way as a trick or suggestion for a daily activity, while also allowing participant choice to follow this activity or work independently on something self-directed. Throughout the course of the workshop, I was challenged to straddle this line between teaching and not-teaching in order to preserve the third space I aspired to create. Although I had initial hesitations about inserting myself more actively into the group as a leader, I believe that the Media Commons' suggestion to provide some amount of structure pedagogically allowed me to create a third space that was still in line with Wilson's (2008b) criteria. In this third space, the Media Commons and I were able to negotiate the trajectory of the workshop together. I believe that our partnership in this project offered a great deal of freedom for me to explore my ideas, but also offered the Media Commons a way to demonstrate their efforts to encourage new types of learning through technology. I initially worried that the tension between my educational goals and those of the institution would be problematic, although this tension was in the end productive in providing structure to specific participants who required it. The structure of providing a daily framework for workshop sessions allowed a more "dynamic" interplay between modes of formal and informal learning. The anti-structure component of independent work time of the sessions appeared to allow a non-prescribed dialogue between student and teacher visual culture to arise and encouraged "communitas" between group members, including myself (p 125). The combination of structure and anti-structure in DigArts appeared to confirm Wilson's notion that third space combinations of structure and anti-structure can lead to positive outcomes for learning.

Problems of access. Another major tension of structure and anti-structure developed from

our encounters with the limitations of the lab and resources available to us. Although the Media Commons lab was equipped with powerful computers with a wide range of software for use, there was some amount of inflexibility when it came to installing new software or allowing students to use peripheral devices such as Wacom drawing tablets brought from home. A number of students in the group used these tablets at home as an essential tool in their digital art-making processes and had expressed to me that they would be excited to have the opportunity to use them with new software like Photoshop during the workshop (personal communication, January 25, 2014). Eva and Carson were the first group members to bring tablets to the lab to use, and quickly informed me that the computers were having issues recognizing the devices. They explained that they had attempted to install the devices but the computers required an administrator's password to allow the installation. I contacted the Media Commons in the following week to inquire about solving this issue, and they informed me that it was their policy that outside software such as Wacom drivers could not be installed on the computers for security reasons (personal communication, January 26, 2014). The same was true for the iPads we had been given access to as participants discovered that while a number of apps were pre-loaded, they did not have the ability to download other favorite games and creative apps to play. The Media Commons worked with me to solve these problems, and allowed us to load specific apps onto the iPads on a week-by-week basis. The Media Commons also explained that participants could also access two computers outside of our lab in the general library area that were equipped to handle tablets, although these were typically being used by University students. Similarly, participant access to these computers was login protected, and their access was further restricted to the days that we met, and expired shortly after our sessions ended. Although I was challenged to work around these limitations, I understood that these measures were likely due the

University's need to protect their computers and networks from malware and other harmful byproducts of unregulated computer use. With thousands of students accessing these resources, these were practical safeguards that would ensure the Media Commons could control damage and continue to serve the needs of the campus community.

Although these minor issues were largely outweighed by the positives of our experiences in the Media Commons, it did signify to me that our lab was perhaps not the ideal art-making environment for some of the participants. This appears to be a major tension that occurred throughout the course of the workshop, which had a significant impact on the efficacy of the third space. For participants like Eva and Carson, who had more than adequate access to personal computers and tablets at home, working with the limitations of the lab was actually somewhat restrictive and placed them out of their usual working patterns. For novices or those without access to high-end equipment at home, such as Henry, Jon, and Hector, this might not have been as much of an issue, as they had not yet learned to work in a way that required these tools. Speaking with Carson about this issue suggested to me that this might have been the cause of some of his hesitance to produce more artwork during the workshop. He explained, "Once you've learned to draw with the pen, it's hard to go back to a mouse" (personal communication, February 1, 2014).

These tech-based tensions remained evident throughout the workshop as group members wrestled with software issues and their frustrations with the limitations of our technology in the lab. However, I was again able to see certain productive aspects of these problems. These technical difficulties disrupted the structure and routines that students were used to working within on their own. Issues encountered in the lab often caught students off guard and forced them to go outside of their comfort zone, to try new processes or software, and to come up with

novel solutions or work-arounds.

Challenging the physical third space. Throughout the course of the study, I had also encountered tensions in relation to non-physical dimensions of the third space. Wilson (2008b) describes the third space as being situated in a physical classroom, but often at a time in which formal learning was not taking place. Wilson describes one half of the classroom as an ordinary classroom (representing structure), and the other half as a cooperative gallery and art-center "living" space (p. 123). I hoped to challenge this idea and examine when and where third space environments might take place online, drawing upon my understandings of Castro's (2009) exploration of online activities as new extensions of third space learning. I had initially planned for the DigArts blog to exist as an online companion to the in-person sessions on Saturdays, and I hoped that I would be able to encourage students to use this site to interact and share relevant links, videos, and other artifacts of visual culture they found interesting. In theory, this was meant to extend the third space into an online dimension for additional study and to also collect artifacts of the study. I instructed participants on how to find the blog and also how to post to it at the beginning of the first workshop session, however they demonstrated little interest in using this as an avenue for conversation or interaction. It was simply much easier for the participants to turn to the person in the next row and share a link or video as opposed to going through the cumbersome process of logging into a blog and creating a post. As a result, this web component of the third space became a place for me to post information, and did not draw much traffic aside from during the days of our sessions. The physical space of our lab seemed to be sufficient in fostering communication between participants. Instead of pursing this effort further, I focused on identifying events in the workshop that signified other shifts of the third space into cyberspace, and also those that had naturally developed without intervention on my part.

A clear instance of this issue occurred in the session in which Eva and Elise engaged in the livestream drawing session. Eva had mentioned to me during our sessions that she admired the work of her friend Elise, and seemed to look to her as a critical friend and someone to learn from. I was disappointed that Eva had not brought Elise back since her first visit to the workshop, as I hoped to study their dynamic as friends as they worked together. When Eva explained to me that she was watching Elise draw live on her computer screen, I was excited to watch this interaction unfold. Although the livestream was not truly interactive in any way other than through text-based chat, it was still an interesting case of learning that occurred somewhere outside of the walls of our classroom. During the livestream exchange, Eva sat in our lab and watched while Elise drew on her computer from afar. This digital way of learning through modeling was a new concept to me, and Eva explained that a major part of her learning to draw has been by watching others like Elise and adopting their tricks, whether online or in person (personal communication, March 15, 2014).

The physical space of our lab was also challenged during my interactions with David in the virtual environment of *Roblox*. Not only was this event interesting for its' subversion of the pedagogical roles of teacher and student, it also presented another case in which learning left the lab and went into an online space. As I entered the *Roblox* world to join David, the focus of the learning experience had finally shifted to a space where he was able to serve as a native expert to my uninitiated visitor. I saw this as a transformative experience in my interactions with David, and I noted that he seemed to enjoy the way the tables had turned (research journal, February 22, 2014). Although we were seated just a few feet apart during this experience, the real third space was happening in the digital realm, where David and I were able to connect and share a transactional experience in his domain.

In the events of both Elise's livestream and the *Roblox* expedition, I was able to observe situations in which the third space became much more fluid and ambiguous than I had planned, particularly in terms of the physical space of our lab. While I had planned to initiate opportunities like these, I ended up needing to do very little to facilitate them, and they tended to happen somewhat organically as participants interacted naturally. The events that I described suggest that the third space is not necessarily structured in any physical space, and that it is likely to appear at "unstructured and unscheduled" times and settings, as argued by Wilson (2008b, p. 124). I also confirm that the third space is more a relationship, rather than a "space", that may occur whenever and wherever meaningful interactions were occurring between modes of learning and visual culture. Digitally based third spaces offer a wide range of new possibilities for sites of learning, which the teenagers in this workshop were able to demonstrate firsthand through their learning experiences in gaming and other online network.

5.1.2: Social tensions of the third space. Because this workshop was linked in multiple ways to the University, it was necessary to have a number of rules in place to manage the space in accordance with the IRB and other institutional requirements. In some cases, these were explicitly spelled out to students. For example, participants were aware that they needed to be officially enrolled in the workshop, and that by doing so they were giving their consent to participate in a research project. This perhaps suggested to participants from the outset that there were social rules in the workshop's informal environment. There were never any real issues of harmful disorder or discipline in our space, and this might be because participants held implicit expectations of what was expected in an environment similar to this. A few had participated previously in the Saturday School program, and many others had experience in other extracurricular clubs, camps, and activities that likely fit the informal schema of our workshop. It

was also likely difficult for participants to ignore the workshop's physical position on a school campus, let alone the largest, most prominent university campuses in the state. Since I had not put many rules explicitly in place, I believe students operated in our workshop under implicit rules of behavior that they imported from these other experiences in learning spaces.

Challenging the rules of the third space. The case of Kristin's abrupt exit from the workshop presented a few difficult questions in regards to what the rules of our third space actually were from both participants' and my perspectives. Even though Kristin's mother informed me that the reason for her daughter's early and unexpected exit was that she was ill, I am not fully persuaded that this was actually the case. Early in the workshop, Kristin had introduced herself as a novice without much experience in digital arts, although she explained she was interested in trying all manner of new things. However, as the weeks of the workshop progressed, I noticed Kristin's optimism and energy in daily activities beginning to fade, and I had particularly noted her frustration during the session in which she left the group. Although I had made my best attempts to cater to this participant, it appears to me as though this was one member of the group who had simply made a decision to opt out of the experience. However, I still felt as though the rules of the space had been broken in some way. Policies on this type of situation were not explicitly spelled out in the promotional material, but participants were asked to sign in at the beginning of every day, and sign out as they left. I believed there to be an implicit understanding that by showing up at the beginning of the day, participants would be staying the full length of the session unless I had been told otherwise by their parents. I recognize that for safety reasons, this should have been made especially clear. These are procedures that were familiar to Saturday School enrollees in our group, but to some of the teenagers who held jobs and drove themselves in their own cars to the workshop (as Kristin did), it might have

seemed to be an unnecessary policy. It is important to recognize that as teenagers, many of these participants lived in another liminal space between adulthood and childhood, where issues of personal accountability and agency had become more complicated. However, it appears to me that on some level, Kristin understood that she was not permitted to leave in the middle of the session, otherwise she would have simply asked if she could instead of excusing herself to the bathroom as a cover. Perhaps she did this to spare my feelings, or in order to encounter the least amount of resistance or attention with her exit. I was not able to get a clear explanation from Kristin or her mother about this situation, but I saw it as a significant way to understand the complicated nature of our third space. I felt conflicted to even acknowledge that there were rules, but as the only official adult in the room, I felt a moral and legal responsibility for her well-being and was legitimately concerned. In this case, I had to acknowledge that as much as I wanted this to be a free space, there were certain controls I was not able to relinquish.

In with the in-group. When discussing Kristin's case, I am reminded of Wilson's (2008b) discussion of the in-group and out-group phenomenon of the third space. The teacher in Wilson's narrative is described as selecting some "candidates" to be admitted to the inner circle, while others self-selected to join the group on their own volition. The members of this inner circle gained access to the teacher's cultural capital and other opportunities that often encouraged lifelong engagement in the arts. However, Wilson notes that on some occasions students admitted having a desire to join the group, but they had not been permitted to enter (p. 124). In Kristin's case, she was in official terms a member of the group from the outset. She knew many of the other participants from school, although it remains unclear whether or not she ever felt as though she was a member of the "in-group" of the workshop. She seemed to share little of the same visual culture interests as many of the other members, and she remained fairly quiet during

most of the informal group conversations that arose. It is also possible that I did not do enough to invite her to share in the group or encourage learning projects better suited for her. These issues, compounded with her struggles to perform at the level of her more experienced peers, might be reasons for her decision to excuse herself from the group.

I experienced similar tensions when participant attendance appeared to be flagging at various points during the workshop. It was my initial goal to set up a third space that was totally voluntary, and there was in fact no mandate for participants to attend week-to-week. However, I felt a personal responsibility to ensure that all participants were having a positive experience, and interpreted low attendance as a sign that my effort to create an engaging third space was failing. However, as it became known to me that many of the participants had other activities that were vying for their time, it was easier for me to see the place of our workshop as one of many spaces the participants were engaged in throughout their week. For some participants, the workshop was a regular place and time in which participants could convene to meet the other members of the "in-group". In this way, the workshop's most valuable asset was that it was an available and dependable context for socialization and learning with peers.

However, I attempted to remain critical when attempting to understand how the various cliques within our workshop operated as forms of social exclusion. I drew upon Bhabha's (1994) argument that within a third space, affinity between like groups likely spring up, and as a result, others within the group are likely to be marginalized or excluded by this dominant culture. I had concerns about David being excluded from the group, because he seemed to share little of the same cultural and social capital that the rest of the group members had in common. Although he attended the same school as a few of the other group members, none of the "cliques" appeared to claim him as one of their own. This is what concerned me most as I started to notice less interest

from David in the daily activities and less engagement with his peers sitting nearby. I believe it is possible that David likely felt like somewhat of an outsider in the group, which is why I attempted to engage with him personally by joining him in *Roblox,* discussing his favorite racing games, or simply talking about whatever was on his mind. These efforts, I hoped, would allow him to feel as though he had an ally in the group and that his input and interests were valuable to the workshop. I was pleased when later in the workshop, his peers began to include him more in activities, particularly in the *Minecraft* expedition that he joined with Carson and Charlie. In this case, social exclusion was evident from the beginning, although these difficulties seemed to be overcome fairly easily over the shared interest in *Minecraft*.

One case of social exclusion in the workshop that was particularly notable was one in which the students marked themselves as members of the out-group, but still seemed to enjoy showing up for workshop sessions. It became clear to me over the course of the workshop that Calvin and Heather were in fact a romantic couple, although they never acknowledged this openly with me or the group. They appeared to rely on each other a great deal when working through problems or looking for inspiration for projects. They rarely spoke with other members of the group, always arrived and left together, and they often lingered afterwards in the UGL coffee shop. This duo appeared to function as its own in-group within the group, even though they also shared a teacher and went to school with many of the other participants. Although I offered advice and expertise when they asked, I was intrigued to watch them challenge and learn from each other's work. As a learning pair, they performed exceedingly well and seemed to find enjoyment in learning about and creating digital art together, as opposed to more closely with myself or other members of the group. It appears that they were less interested in the social dimensions that the group offered than the opportunity it provided them to spend time together

doing something that they mutually enjoyed.

Sharing self through deviantArt. In certain cases, it also became evident that major tensions existed between some of these student's digital visual culture worlds and their social lives in and out of school. This was clear in my first review of Eva's deviantArt gallery, as I previously described in regards to her image titled *Hair.* Through this image and accompanying text, Eva had shown a great deal of emotional honesty when discussing a recent confrontation she had with her parents about her desire to get a controversial "fauxhawk" hairstyle. I was struck by this image and its' message, and found even more examples of candidly autobiographical elements in her artwork posted online, many of which literally illustrated what was on the mind of this teen. Eva's artwork was sometimes lighthearted, and demonstrated a supportive home life. *Like Father, Like Daughter* showed caricatures of her and her father scowling in pajamas with text in the middle that read "Too Early…" Eva's illustration style appeared to be inspired by the visual culture of her favorite manga and anime works, and a number of her images were illustrations of anthropomorphic characters she had personally designed, with names like "Hitomi", "Yukio", and "Derick the Demon". Other illustrations suggested an adoration of certain celebrities, such as *Jared Leto is my Hero,* which displayed a caricature of Eva screaming and pouring tears, reaching out with wavy arms stretched towards a portrait of the movie/rock star, who is surrounded by a field of stars. Many other images were gifts drawn for friends, or artifacts from her practice with new processes.

However, these types of images were found alongside others that demonstrated her relationship with more complicated issues. *Cover Me* (Figure 15) displays a more subversive edge and sense of humor, depicting a police officer tucking his sleeping partner into bed.

Figure 15. *Cover Me* from Eva's deviantArt gallery

One image which was drawn for her best friend Elise depicted Elise and her girlfriend embracing with one's thought's expressed in a bubble stating, "eternally screaming". *Genderless Rainbow* and *Primadonna Boy* also suggest her progressive stances on issues of gender and sexual orientation. *SO this happened* is a five-panel comic strip in which Eva recounts her experience of being sexually harassed at her fast food job by a co-worker (research journal, February 12, 2014). Art educators like Wilson (2003) have argued that discussions of visual culture in classroom settings have led students to deconstruct artifacts that they are drawn to and begin dialogues about the complicated issues buried within. In the classroom, these dialogues often appear to be centered on external artifacts for discussion, and rarely draw from students' self-produced visual culture. This distance from the site of discussion might act as a buffer and allow a more broad conversation to take place. Classroom conversations like these might allow students to gain insights about how certain ideologies operate within the visual culture they are drawn to, but they do little to explore students' lived experience with these issues. This is easy to understand, as the structured environment of the school perhaps is not the ideal place to unpack the messiness of teenage life and all of its' ethical complications. However, the unique social

qualities of the third space might encourage more open sharing of these issues. This may have something to do with Wilson's (2008b) "in-group" phenomenon, and group members perhaps felt less risk in sharing these experiences with peers they believed would understand. Eva's experiences with complicated subjects were spelled out biographically in the visual culture she produced and shared in her deviantArt gallery, which she shared primarily with an in-group of a few friends from her real life and online networking experiences. As an educator, I was initially faced with the difficulty of how to confront these issues directly, but I found that the third space allowed me to discuss them with her in an honest and non-judgmental way. This confirmed for me that the dialogue between students and teacher described by Staikidis (2006) is in fact possible, and in this case was a valuable window for me to understand the complexities of Eva's life outside of our group.

I mentioned to Eva that her deviantArt gallery reminded me in a lot of ways of the private journals and notebooks used by teens of my generation, with the major difference being that hers was voluntarily opened to the world. Having grown up in the same area where she lived, I understood that her stance on some of these issues would likely be at odds with the conservative population in general, if not also at home. I felt compelled to examine this issue more closely, and so asked her about her gallery during an informal conversation at the next session. She explained to me that while her parents were not aware that she had a deviantArt gallery, but also that they did not seem to pry much into the types of artwork she created, and that she felt it was a fairly safe space to talk about her personal life. After this conversation with Eva, I understood that her deviantArt profile, while not technically a secret from her parents, was not something she felt compelled to share with them. There were certain aspects of her art-making and learning that she did share with her parents, but this was not one of them. Instead, it

was something that she used to communicate with friends, but also to make some connections to others who might feel the same way as she did. The deviantArt gallery was also part autobiographical and was used to communicate her feelings about complicated issues in her life. However, Eva's gallery was more than a static notebook or journal that documented her inner thoughts, instead it was a dynamic and transactional space for her to exercise her talents and voice. I suspect that having an outlet to others who thought like her was a valuable thing in her navigation of these issues.

5.1.3: Tensions in Pedagogy. A number of other tensions also arose in regards to concepts of pedagogy that were experienced during the course of the workshop. In many cases, the events that led to these tensions centered on differences between participants' in-school and out-of-school experiences. In our unique space of the workshop, the potential for these tensions to arise was great. In each of these cases, it was demonstrated that models of learning between contexts differ greatly, and the roles of teacher and student can become complicated in the third space.

Carson and home-school. An interesting site for exploring this tension between formal and informal learning worlds came in the case of Carson, who was home-schooled. I had become aware of this in previous interactions with Carson while observing at the Saturday School program before recruitment for this workshop began. I was intrigued by his case, and was curious to understand how a home-schooled teenager like Carson learned about art at home as part of his formal curriculum, and also how it related to his informal art-making. I engaged him in a conversation before one of our sessions began in order to learn more about these dimensions of his art education. During this conversation, Carson described his home-school experience as "alright" and seemed to be short of words when talking about this aspect of his learning. He

explained that he typically worked in the mornings from curricula selected by his mother and ordered online. The subject Carson studied included the core subjects taught at most schools, and included an art curriculum that was pre-packaged in a set of books. He also explained that while art production and history were both parts of his coursework at home, the home school art curricula he has encountered rarely incorporated aspects of digital art making. In order to supplement his learning in digital art-making, he explained that it required "a lot of practice", access to tutorials, and time to figure it out on his own (Appendix)

I discovered that the Illinois State Board of Education has fairly flexible policies when it comes to curriculum selection for home-schoolers. I had assumed that there might be some amount of state-intervention when it came to assessment and testing, but this does not appear to be the case. According to information provided on the ISBE[19] website, home-schooling is considered a form of private education. As any other private or public school, home-school educators were required to teach "the branches of education taught to children of corresponding age and grade in the public schools", which included language arts, mathematics, biological and physical sciences, social sciences, physical development and health, and fine arts (ISBE, 2014). ISBE further states that testing is not required in the state of Illinois for home-schoolers, although private testing resources are permitted if parents wish to evaluate their children. Furthermore, the state allows parents to determine when their child has met the graduation requirements of their private home school, and when they are entitled to receive a high school diploma (ISBE, 2014).

Because of the non-standardized nature of home-schooling curriculum and assessment requirements, Carson's mother explained to me that she ordered her curricular materials online,

[19] Illinois State Board of Education

and that the publisher varied depending on the subject. She did not know off-hand what the publisher of the art curriculum was, but said that it was part of a package that another home-schooling friend of hers had recommended. She did not have Carson take any sort of state-sanctioned assessment tests. When asked about Carson's informal art-making at home, she explained that Carson finished much of his school work quickly so that he could spend time drawing or playing games. She estimated that Carson would spend at least 3 hours a day on these types of activities, but that she felt this time spent on his art was valuable to him. I asked her what she felt that Carson was learning through these informal art activities, and she responded that Carson had gravitated towards art from a very young age, and that she expected he would likely want to find a career in the field. She theorized that Carson was learning a lot on his own about what types of art he was actually most interested in, and therefore it was time well spent. She also explained that although he was home-schooled, they also took efforts to allow him to socialize with other teenagers, particularly through enrollment in programs like Saturday School and the DigArts workshop (personal communication, March 3, 2014).

It became evident to me through this research that Carson already had many of the things that the workshop purported to offer students. He had access at home to a fairly powerful computer and other resources like his personal drawing tablet, and he had plenty of time in his schedule to devote to his digital art-making. Though he did appear interested in learning new things, particularly Photoshop, what he appeared to gain most from the workshop was its' ability to put him in the same room with like-minded peers with whom he could share and compare his interests. Wilson (2008b) argues that a major benefit of the third space is that allows learners to travel from their normal lives and learn to live in various "art worlds" (p. 125). In Wilson's account of a specific third space site, "authentic" models for how to live in the art world were

provided by the teacher and other visitors to the space. However, Wilson does not fully acknowledge the ways that third space student participants might also contribute and compare their own models for living in their respective art worlds. The workshop might have offered Carson the opportunity to learn from me as a purported "expert" and leader in the classroom, but it also allowed him to learn (from myself as well as his peers) new models for art-making and engagement with online visual culture. Having a chance to observe and discuss these things face-to-face with his peers was something that his home-school experiences likely lacked. Even though this social comparison was particularly important in Carson's case, all members of the group seemed to share this experience as we worked together in the lab and observed each other's ways of "living" in visual culture. This social dimension of learning in the third space provided all participants, including me, new perspectives on what it means to work and live in the contemporary world as producers and consumers of visual culture.

School art and non-school art. The tension between school and informal art worlds became further illustrated through the controversy surrounding Charlie's collage of the Ice Cube poodle. Charlie had worked on this project during our session in which I had introduced various collage techniques in Photoshop, and was proud to show it off to me during our session. Although the subject matter was somewhat irreverent, I did observe Charlie apply a great deal of independent focus and effort in the process of making this collage, and he took care and solicited my advice when attempting to manage the transition between the dog's hair and Ice Cube's face (personal communication, February 15, 2014). The technical blending of the piece was fairly well executed, and my observations of his working habits on this project suggested that he had learned a great deal from this exercise. The humor and subject matter of the piece also got a laugh from his peers in the workshop, and some complimented him and asked about his process.

When he informed me during a later session that his classroom teacher had taken issue with his submission of this piece for a school project, it suggested to me that there might be a significant disconnect between what productive work meant in our context and in the school context. Charlie's school art teacher, Ms. Blaser, explained to me that she rejected Charlie's project partially due to her own requirement that students create work for her mostly during her own class hours. However, she did admit that she had certain reservations about his choice of subject matter, and she felt that his talent wasn't fully represented in the original image he had turned in. Ms. Blaser also agreed with me that Charlie's project was "silly", but she articulated that that sort of silliness might reflect poorly on her teaching if it was hung on the walls of her school's hallways. She explained that she had gone through a great deal of difficulty to secure the computers and other technology required to teach digital arts in her classroom, and that she worried that administrators might see results such as these and be unimpressed with how these resources had been used to make "silly" images as opposed to more serious artwork. I interpreted this as evidence of a major conflict in the school setting, not only between Ms. Blasér's ideas regarding student art content and aesthetics and those of her students, but also by extension between the students and the administration's attitudes regarding the teaching of "fine arts" over allegedly low-brow visual culture. Ms. Blaser argued that in her classes, certain projects did encourage some degree of fun, but in the end she believed that Charlie's talents and potential to be a leader and model for his classmates were unrealized in the piece that he submitted.

I gathered from this conversation that Ms. Blaser, as a committed educator, understood the importance of having students like Charlie to model artistic curiosity and skills. Ms. Blaser was keenly aware of the social dynamic of her class and knew that a successful classroom depends on the contributions of its student participants. She also felt compelled to push students

to produce work that would reflect positively on her teaching, as seen by stakeholders in the school. However, I have come to understand that at the center of this conflict was the concept of hybrid cultural productions of the third space. Bhabha (1994) theorizes that in the post-colonial third space, dominant and subordinate cultures collide and create unique and unpredictable hybrid cultural productions. Like the third space itself, these products of the third space are often interruptive and interrogative of the dominant ideologies and positions of power. Wilson (2008a) argues that when he sat and drew collaboratively or at the same table with children in the third pedagogical space, the result was a hybrid of "other-than-child/other-than-adult" visual culture (p. 9). In these terms, I saw Charlie's Ice Cube/poodle collage as a hybrid cultural production that explored and interrogated the boundaries between school art and non-school art. This product did not belong fully in the realm of self-directed art-making as he was following a prompt I had provided for the day. It also clearly did not fit in terms of what his teacher considered school-art. Instead, it sat somewhere in the middle of these realms, drawing elements of absurdity and inanity from his personal visual culture world. At the same time, he used certain collage techniques[20] learned through my instruction to create a successful and professional-looking blend between the images. In these ways, Charlie was able to learn technical skills in the third space of the workshop that were useful in other domains of learning. This also confirmed for me what Wilson (2003) found in observing third space activities of children: that in the completion of an assignment or task, learners will incorporate their own personal narratives and visual culture in satirical and critical ways (p. 121). For the purposes of the workshop as a third space, this piece seemed to be a success. The tension of the third space occurred only when

[20] During my exchanges with Charlie as he was creating this piece, we discussed the value of working in layers, using the clone stamp tool, and adjusting brush strengths and textures when blending the soft hair of the poodle into Ice Cube's face. These are just some of the ways I saw Charlie's work as more structured and ordered than typical self-directed art.

Charlie attempted to bring this hybrid product across boundaries into the school-art realm and was met with rejection.

Detachment and attachment in pedagogy. Throughout the course of the workshop, significant tensions arose when I attempted to intervene and provide guidance to a particular students in the workshop. These tensions led me to again investigate how the notions of structure and anti-structure (Wilson, 2008b) applied to the third space of the workshop, but in this case it influenced my approach to pedagogy within the space. It was my goal from the outset to maintain enough distance to encourage students to work as independently as possible in order to create a de-formalized third space, but it also became evident that in the case of some of the group's novices that my guidance and expertise was sometimes the type of interaction that they valued most. Facilitating a positive experience for every participant involved required me to tailor my approach to pedagogy in the workshop on an individual basis, applying a combination of both detachment and attention as pedagogical methods.

Heather and Calvin were two participants who seemed happy to work independently for the most part. When dealing with these participants, I tended to apply a more detached approach to instructing. As I previously mentioned, Calvin and Heather in many ways operated as a sub-system of the group as a whole, and were somewhat detached from the rest of the group members. While their interactions with the group were limited, they were typically interested in trying out the daily trick that I presented, which suggested to me that they were interested in some amount of guidance or instruction. I would check in with them during my circulations as I did with every participant, asking simply, "Are you guys doing okay?" which typically resulted in a simple affirmative response. On occasion, I would field a question from one of them, and they would happily answer my questions when I wanted to interview them about their work.

However, I tended to give them lots of space when they were working, and I offered my assistance only when they posed a specific question to me or had called me over to share something voluntarily. In their case, a combination of attention and detachment was ideal, as they appeared happiest and most productive when working together without much interference. Over the course of the workshop, this dynamic remained essentially the same. It was difficult for me to member check with all group members about whether they were receiving the ideal amount of attention, but my repeated interactions with Heather and Calvin suggested that the dynamic we had struck was satisfactory for them (research journal, March 15, 2014).

However, there were cases in which attention to instruction was necessary. This was evident in the case of Henry, whose mother had contacted me toward the middle of the workshop to express that he had been voicing some frustrations at home regarding the workshop. Henry voiced his concern that he often felt unable to keep up with the daily tasks that I had introduced (personal communication, February 22, 2014). In this case, the efforts I made to provide more guidance to Henry first took the shape of more visual instructions spelled out on the blog, as I detailed the process of the daily tricks with more screenshots and visual aids. I also made more of an effort to check in with Henry and his friends during my circulations. I still attempted to detach somewhat from the "teacher" role while giving instructions, and I posed my guidance more as working together to solve a specific problem, and less of an expert dictating steps to be taken. I had hoped this would encourage Henry to continue working through issues independently and with other group members, but also to keep him and other novices from becoming overwhelmed. I also observed that on days with more open-ended goals and freedom to explore the software, such as the Photoshop color manipulation activity, Henry appeared to be much happier working independently and he continued tinkering with new images after he was

satisfied with his first effort (research journal, March 1, 2014). In this case, Henry not only became engaged in this work, but this level of engagement was sustained for the rest of the session. I interpreted this turning point as a sign that what these novices needed most was a tailored combination of both attention and detachment in the third space, allowing room for them to explore but also providing support when needed. As a result, I continued to try to find ways to encourage play as a hands-on learning process for group members like Henry, and I took a more involved role in helping him over his hurdles.

Through the tensions I experienced when attempting to negotiate pedagogical structure and opportunities for anti-structured activities in the workshop led me to understand that in the third space, pedagogical intervention is most effective when it is tailored to the specific needs of the students. This is not dissimilar to the ways teachers in these student's formal spaces provide a balance of structure and anti-structure. However, this does not mean that learners in the third space will always volunteer when they need help, as I learned through my experiences with Henry. Rather, it implies that pedagogy in the third space requires a special attunement to the needs of learners. In the case of this workshop, I found that more attachment and structure in the beginning stages of a project paired with later detachment provided a lattice for student work to build off of but also to take new directions.

As a whole, the DigArts workshop seemed to be a positive experience for most of the group members involved, and there were moments in which it was at odds with Bhabha's (1994) description of the third space as discourse of dissent. There were a few members of the group who seemed to offer some amount of resistance to my guidance or who avoided participating in group activities. There were many moments in which a question I asked was met with silence. There were also times when I asked a student to explain a video game or cartoon that it was clear

that we were of completely different generations. However, the nature of our learning space was largely cooperative, and I was able to talk closely with many of these teens as they shared with me their frustrations about school, their personal lives, family, and other issues that were pressing in their lives. In some ways, the discourse of dissent taking place in our lab was not as much about teacher versus student, old versus young, or learning versus fun. Rather, it appeared to be based on the idea that this was a space in which they could dissent about anything that was on their mind, where they could feel free to engage their visual culture desires without being made to feel bad about it, and that offered them a chance to meet others who shared the same interests. In this way, the DigArts workshop was not particularly operating as a discourse of dissent against the rules, routines, and other structures of learning, but rather seemed to work toward creating order from the complicated issues of teenage life.

5.2: Forms of Online Visual Culture Production and Consumption

A major focus of this study was to understand more fully what types of online visual culture teenagers are presently engaged in producing and consuming. In the narrative provided in Chapter 4, I have identified and described a number of specific sites and artifacts brought into the DigArts workshop by participants, which provided a foundational understanding of what types of media were most appealing and to participants in the workshop. This section will discuss a few of the key sites of visual culture production and consumption that were uncovered, and it will also outline more completely the implications these sites of visual culture suggest in terms of art learning.

5.2.1: Visual culture learning communities. A great deal of the visual culture consumption and production that I witnessed DigArts participants engaged in were rooted in the contexts of various VCLCs that sprung out of sites of online popular visual culture such as video

games, anime, cartoons, movies, and so on. Freedman et al (2013) define VCLCs as informal learning groups that arise around a site of a shared visual culture interest not typically found in classrooms, such as graffiti, fan art, video gaming, and so on (p. 106). VCLCs provide learners with a way to socialize with peers and to gain art knowledge that is not a part of the classroom curricula. They also often include an online and offline component, allowing participants to interface in direct and indirect ways.

One VCLC that arose in the physical space of our workshop emerged around *Minecraft,* as a few of the participants met each other in the game and explored the terrain together. I noted that this was a valuable experience for David, in that it allowed him to socialize with others in the room, and it also appeared to offer Carson and Charlie the opportunity to play a game that was still somewhat off limits at school. Eva's deviantArt gallery again provided another example of a VCLC, although it was one that largely existed online. While a few of the commenters on her gallery were personal friends she saw at school or in other real-world situations, most of the connections Eva made through deviantArt were with virtual strangers. These online friends offered her feedback on her work, and she reciprocated by reblogging or commenting on theirs. It appeared to function in the way any artistic community would, feeding off each other's ideas and work to inspire new work. In these ways, I was able to witness how a VCLC can offer participants valuable experiences to socialize and to extend learning outside of the classroom in tangible and intrinsically rewarding ways. Another key point raised by the literature worth investigating is Jenkins' (2006) concept of convergence culture. From the outset of this study, I wanted to understand how this concept was still relevant to today's students. Through my interactions and observations with participants in the DigArts workshop, and through review of some of their self-initiated artworks, I was able to get a clearer picture of the online cultural

landscape inhabited by these teens and their place within it.

5.2.2: Convergence culture. Initially, I was interested in understanding how these participants may fit the description of prosumers (Jenkins, 2006; Toffler, 1980) who were engaged in a transactional relationship of both consuming and producing media. I saw this was especially evident in the case of Jessica's experiences designing skins for *League of Legends*, but also through other participants' contributions to deviantArt galleries, YouTube channels, Facebook photo albums, and other online visual media outlets. In all of these cases, the makers appeared to pull images, ideas, and other source material from existing cartoons, video games, and other commercial forms of new and old media, and then remixed them into something new. The idea of being a prosumer seemed to be second nature to these teens, and they appeared well conditioned to the experience of producing and sharing media through online outlets. I also found evidence in these sites of Jenkins' interpretation of convergence culture as one in which grassroots and corporate media intersect, where media and information flows across multiple platforms, where participation is encouraged, and collective intelligence is valued.

In the case of our workshop, one of the richest examples of a visual culture site in terms of Jenkins' (2006) convergence culture was one of the participants' favorite cartoon television shows, *Adventure Time.* The show's quest-based narrative seems to draw inspiration from the geek-classic analog role-playing game (RPG) *Dungeons & Dragons*, which is a game that *Adventure Time*'s creators and writers admit informed their storytelling process. Avid players themselves, they often wrote episodes as *D&D* campaigns that they wished they could play (Geekadelphia, 2014). However, the show also subverts this adventure/fantasy genre by adding

contemporary subject matter[21] and irreverent twists[22]. In *Adventure Time*, the timeless trope of the hero's quest is turned on edge and the traditional values and virtues associated with the genre are called into question. In response to its' popularity, fans of the show have now created "mods" and campaigns for *D&D* that are inspired by events and characters from the cartoon (Tribality, 2014). The loop of *D&D's* popular culture influence appears to have come full circle, and the transactional dialogue between the two texts (the cartoon and the game) and their fans seems to suggest a relationship in line with Jenkins' (2006) convergence culture. It should be noted that I also see connections to *D&D* in many other visual culture artifacts brought to the workshop by students. *League of Legends* is one of many massive-multiplayer online roleplaying games (MMORPGs) that seems clearly inspired by *D&D,* not only in terms of its' fantasy genre, but also through the gameplay of working in cooperative guilds with others, free-form exploration, casting spells, and completing missions or quests that continually add to the development of a character or avatar. This suggests to me that what made *D&D* popular among geeks in the analog 20th century is still relevant to the interests and imaginations of teenagers in the new millennium.

In another way, *Adventure Time* was also a franchise that arose in virtually every workshop session across a variety of contemporary media including video games, Cubeecraft designs, and video clips. References to *Adventure Time* were ubiquitous in fan-created parodies, show-inspired artwork, and other varied forms of digital visual culture. This cartoon, like many others today, has been cross-marketed in a way that allows its' owners to capitalize on the profits

[21] Finn and Jake notably are often assisted by their anthropomorphic hand-held video game console, BMO.

[22] In a personal favorite, Finn and Jake assist an elderly and sweetly Southern-accented miniature elephant named Tree Trunks, who loves to eat apples and seduce men. They help her search for the mythically delicious Crystal Gem Apple, and they encounter and overcome a number of adversaries along the way. After finally finding it, Tree Trunks takes a bite, bursts into oblivion in a cloud of vapor, and the episode ends. In this case, the heroes' quest ends in an unsettling manner, having assisted in the self-destructive demise of Tree Trunks.

from toys, apparel, and other offshoots of the original show. However, the fan community around *Adventure Time* is an active and participatory one, and there is an online wiki where devoted fans have collectively written articles and fan-fiction, and have catalogued even the most minor characters and plot elements. Fans of the show also participate in cosplay at events like Comic-Con, crafting and wearing their own costumes inspired by the shows characters, and meeting other fans. As a visual culture site, *Adventure Time* seems to serve as a fitting illustration for how a media franchise might operate in Jenkins' convergence culture, transcending and communicating across old- and new-media boundaries, encouraging participatory engagement from its' consumers, and demonstrating an intersection between grass-roots and corporate interests. It is clear that Cartoon Network owns the rights to the show and turns a profit on it, but they also grant fans a greater degree of agency and freedom to remix, appropriate, and contribute to the visual culture of the franchise.

Amateur time. *Adventure Time* and other sites of online visual culture also served to inspire a counterpoint to Keen's (2007) argument that amateur media production and distribution in the convergence culture has contributed to a cacophony of mediocrity, and as a result has led to it becoming much more difficult for quality art and media to become recognized. On the contrary, it might be argued that Keen (2007) overlooks an important factor of online collective intelligence and the types of media it produces and chooses to highlight. In the case of many students who participated in the DigArts workshop, sifting through this surplus of media was an important task. In order to locate and identify material that was most useful or interesting to them, group members used image sharing tools like Tumblr and deviantArt, YouTube channel subscriptions, peer referrals and other methods to curate their own media landscapes according to their unique interests and tastes. These and other methods appeared to be ways by which DigArts

participants were able to discriminate between sources of media, cut through the noise of the online visual culture landscape, and cobble together their own personalized stream of information that best suited their progress as visual culture makers and consumers. These students demonstrated a sophisticated understanding of how to tune out the "cacophony" described by Keen to find images and other media that resonated with them.

There may in fact be a high degree of "mediocre" material being produced and shared online, but online visual culture is situated in a system where video views, page impressions, and social media sharing snowball virally and call attention to specific artifacts that command the most attention. As a result, the more popular a site is (such as a video, meme, or image), the more exposure it receives across social media and in turn by commercial media outlets. One notable meme that recurred in the online visual culture of workshop participants was Korean pop singer Psy's video for "Gangnam Style", which Carson explained was integrated by fans into one of his favorite video games. "Gangnam Style" became a worldwide phenomenon and amassed over two billion plays on YouTube alone over two years. "Gangnam Style" became a meme that was repeated and remixed in various ways online, inspiring countless fan-made parody videos, images, and was even referenced in custom avatars in some of the group members' favorite video games[23]. Mediocrity seems to be the selling feature "Gangnam Style", as the music is not particularly inventive and the video's narrative follows the tired trope of the celebrity artist surrounded by scantily clad women and signs of his luxury. However, most of the video's popularity seems arise from a popular desire to laugh at the irony of the images, particularly in juxtaposition of the diminutive Korean man dancing poorly in a sparkly tuxedo surrounded by

[23] Carson explained to me that avatars in the game *Loadout!* can be programmed to perform "taunts" directed at other players. As a result, fans had created a taunt that mimicked Psy's signature dance style.

beautiful women, exotic cars, and all the trappings of celebrity. Although this might seem mean-spirited, "Gangnam Style" made Psy (who seemed to be in on the joke) an international star, and other net citizens (including a few workshop members) soon reveled in the fun of embarrassing themselves on YouTube and other social media by sharing videos of their own mediocre interpretations of Psy's original mediocre dancing. This was a movement that seemed to celebrate being not-particularly-good at something but enjoying doing it anyway. This embrace of mediocre cultural production might alarm Keene, but appears to be a significant characteristic of what made the online world engaging for workshop participants.

5.3: Hybrid Learning in the Third Space

From the outset, my study was also how modes of formal and informal learning interact in the third space to create new hybrid forms of learning. In the section that follows, I will examine what can be understood about this interaction, particularly in terms of what informal learning behaviors offered in the third space. In this discussion, I will provide evidence that this combination of educational modes creates a rhizomatic model for learning that is unique from others and bears specific advantages for learning about visual culture.

5.3.1: Moments of intellectual significance. During my observations, I was able to find evidence of a number of the characteristics of informal learning presented by Dewey (1929). I was particularly interested in looking for moments of "intellectual significance", or when "a thing is more significantly what it makes possible than what it immediately is" (p. 128). Throughout the course of the workshop, a number of moments signified to me that the instrumental tools and mundane activities at hand during the workshop in fact signaled the existence of deeper learning experiences happening beneath the surface.

Intellectual significance might be illustrated through the ways that group members

appropriated images to use as source material when learning new skills in Photoshop and other software. From an outsider's perspective, this type of learning might have appeared to be fairly rote-oriented during activities in which a step-by-step process was required (such as the GIF, video cloning, and mini-planets tricks). However, in some of the more open-ended activities (such as the digital collage), it became evident that these inoccuous activities were gateways to more significant issues at hand. In many cases, the workshop allowed participants a way to engage with their own interests in popular visual culture. It seems significant that when given a virtually limitless supply of images online, these students chose images of superheroes, movie stars, musicians (albeit surprising ones such as Miles Davis), and other visual artifacts of their pop culture interests in movies, video games, and so on. The choice of this subject matter also seemed to be a way for these group members to take command of and interact with their favorite images and subjects as they learned to remix colors, mash up visual icons, and create new compositions from existing artifacts. These image choices also generated a great deal of conversation between group members, which suggests to me that these choices were in part a social act that signaled to others their visual cultural interests and forge affinity groups with their peers, with whom they could discuss and learn more about a specific site (such as *Minecraft*). In this way, the activities at hand were much less important than the opportunity they provided for participants and myself to convene over shared popular culture images and respond to them in conversation. However, my efforts to confirm this in conversation with students were met with some difficulty. In a discussion with Jon about his selection of an image from the television show *Breaking Bad* to work with, he said simply that he thought it was "cool" and that he didn't know where else to start. At the very least, I can surmise that Jon's choice suggests that for him, a "cool" end result needed to draw upon "cool" source material.

The process of digital collage employed by group members offers a useful demonstration for Dewey's (1929) idea of intellectual significance. Even in traditional hand-made collage processes, the purpose is almost entirely to take something mundane, simple, or instrumental, and change it's meaning into something new and significant through juxtaposition, appropriation, or alteration. Much of what these participants were learning about digital collage can be applied to the traditional collage process as well, and I suggest that the two forms of collage are similar in one significant way. Collage (digital or analog) as an artistic process seems to enable the exploration of a dialogue between found images and their mediator, the artist. This was evident during the students' own work in this activity during the workshop, as they mixed and mashed-up elements from various areas of their popular culture interests into orginal compositions. Even in the following weeks, some students seemed content to revisit this process during their own time, which suggested to me there was something about this dialogue of images and the ease and open-ended nature of the process that was appealing to these students.

However, I also noticed major differences between digital and traditional collage processes. Whereas a traditional collage artist is limited to the material images in their immediate environment, the DigArts participants could draw upon a virtually limitless supply of visual material from online sources. Digital collage artists also have the ability to work with much greater ease in their manipulations, adjusting colors, clipping edges, and flipping the orientation of images with just a few clicks of a mouse. Perhaps the most distinct difference is that a digital artist has an "undo" tool at their disposal. I believe that these unique aspects of digital collage allowed the DigArts participants to take greater risks, try more combinations and techniques, and come to a greater understanding of the deeper issues presented by collage making. Any mark made was instantly reversible, and so the stakes of risk-taking were much lower.

Wasting time and mundane learning events. I also looked back to Coffield's (2000) metaphor of the iceberg of informal learning, and attempted to look below the surface of seemingly mundane events to discover the submerged types of learning that were also taking place. I saw this in line with the concept of intellectual significance, as it suggested that substantial modes of learning were likely happening beneath the surface of seemingly unimportant events. To begin, I looked for instances where the activities of specific group members might have been mistaken for "wasting time". I found this to be particularly relevant in the case of David and his interest in auto racing simulations. This is especially significant, as I initially had objections to the amount of time David was spending during the workshop on these seemingly idle activities, as I had observed him surf YouTube or other platforms for videos to watch during most of the sessions. There was rarely a day in which David was engaged with the projects that I presented. Rather, he seemed content to spend his time on this same activity week after week on his own. His seemingly idle activity of watching YouTube videos had made me concerned that he was not learning much during our class time, but on further reflection these moments of "wasting time" might signify learning that is not immediately evident.

The videos David found usually fell into two categories: screen captures of others playing racing video games, or dashboard footage from real-world auto races. On the surface, what I observed was a participant who was somewhat withdrawn from the group, and who was not particularly engaged in anything that I would initially call productive or constructive. In my personal interactions with David about this, I would often suggest ways he could incorporate his interest in racing into the daily activity, but he would typically respond with little enthusiasm toward these prompts. However, over the course of the workshop, I attempted to challenge my attitudes on David's activities and come to a better understanding about what might be learned

by David through these activities. After speaking with David in more detail about these videos, I was eventually able to uncover the fact that these were not simply videos he was watching passively, but they were instead forms of simulation that allowed him to vicariously experience situations beyond his grasp in the real world. As he watched racing game videos, it did not appear as though he was watching them as a form of study, hoping to improve his own racing in the games he played. Instead, he appeared to be simply drawn in by the unique experience these simulations provided him to vicariously reach dangerous speeds, barrel around tight corners, and walk away unscathed from spectacular crashes in top of the line (yet virtual) cars. In the virtual world of racing, he could take these risks without consequence, breaking the rigid rules of the road that he would soon be forced to abide by as a new driver in the real world. In David's case, the seemingly mundane activity at hand actually signified a much deeper and active engagement in virtually exploring social rules, and playing out fantasies of speed, class, and power. Watching others break these rules seemed to satisfy these needs while he was in our classroom away from his home gaming console. I attempted to triangulate this notion in conversations with both David and his mother separately at different times during the workshop. From David's perspective, he explained that the racing games were fun due to their ability to place him "behind the wheel" of cars that he would never have a chance to drive in real life, which suggested to me that the simulation of the experience was what was resonating most with him. This simulation, as he explained, also carried the added benefit of a "reset button" when things went awry. However, not all of the racing game videos David watched contained that much break-neck racing action. He also seemed to be drawn to the simulacrum of real-world driving provided by certain games and the ability to sit behind the wheel for an extended 2-hour long race, which he would watch for practically the entirety of our session. In this case, it was still an important engagement with

fantasy simulation that seemed to draw David in. In these cases, David was able to sit behind the wheel of a virtual racecar that was designed to operate as a real one, and the task of completing an extended race also mirrored closely what a real-world racecar driver might experience. Both of these facets of virtual racing simulations (fantasy and simulacrum) seemed to serve as lures for David's attention, and effective ones at that.

In my conversations with David, he was often eager to share with me the depth of his knowledge of the auto-racing world. It would be easy to look at these exchanges and pass off his knowledge on this subject as trivial or useless. David's learning in this domain was informed by many hours of contact with digital visual cultural material, both at home and in our lab. At first glance, David appeared to be wasting time. However, looking more closely suggests that David's engagement with this visual culture was highly active and critical. According to Gee (2007), children (and adults) who play video games can be seen learning actively and critically if they 1) are learning to experience (see and act on) the world in a new way; 2) gaining the potential to join and participate in an affinity group; 3) developing resources for further learning and problem solving (both in and out of the semiotic domain in question); and 4) becoming able to understand this semiotic domain as a design space that engages and manipulates people in certain ways, particularly in fostering relationships among groups of people. Gee argues that these four criteria are what signifies active and critical learning in any semiotic domain, but its application to video games is particularly useful in countering attitudes that describe video gaming as a "waste of time" (pp. 37-38).

In some ways, David's interest in gaming was further facilitated by YouTube and other video sharing platforms. This also suggested to me that surfing YouTube, which could be seen as an idle and passive activity, actually serves an important function as a site for learning for some

of today's teens. David spent hours watching videos online during our time together and never came close to running out of material to draw his attention. In this case, YouTube may serve as an interesting site of intellectual significance, as it provides users a platform to interact around shared interests, provide and learn from video tutorials, and contribute to a never ending supply of visual material. David used this site as a way to fuel his learning about various cars, raceways, and games, and never seemed to be bored in the process. While David's interests were in auto racing, YouTube has become a place where other affinity groups and visual culture learning communities (Freedman, et al, 2013) have sprung up around virtually any topic come to mind. Within these affinity groups, users respond to each other in "vlogs" (video blogs), post and respond to each original content, or simply take in an endless supply of visual media. In these ways, YouTube may serve as an instrument for learning whose implications are much greater than as a mindless distraction, and thus might be seen as an important site of intellectual significance.

These were just a few ways in which I saw the concepts of intellectual significance and tacit learning play out in DigArts. By the end of our time together, I came to see practically every action of the participants as the tip of Coffield's (2000) "iceberg", and I attempted to look deeper to uncover the real tensions and significance behind these actions. Every tool that was used by each participant during the workshop was more than just a piece of software or hardware, it was a gateway for learning. For Eva, deviantArt was not simply a site to upload artwork to share with friends, it was a social outlet and opportunity to explore complex issues through her self-directed art-making. For Carlin, sitting in the room and surfing through YouTube and talking about gaming served as an opportunity to build a circle of peers he missed during his home schooling. Jessica seemed to understand the obstacles that stood between her and publishing her *League of*

Legends character skins, but her act of simply aspiring to participate in the virtual marketplace of images within the game inspired her to explore concepts of identity and fantasy in her self-directed artwork. Through these examples and countless other instances, I surmise that Dewey's (1929) theories of intellectual significance were especially relevant in the DigArts workshop's daily events, as seemingly mundane activities often provided foundational learning opportunities. The concept of intellectual significance has always been especially relevant in art-making, as simple instrumental tools (such as a paintbrush or pencil) are used to create new symbolic meanings. In digital art-making, the basic instrumental tools of a specific software like Photoshop or platform like YouTube might also lead to modes of symbolic expression and can encourage deep and active learning in a hands-on way. In a third space environment like DigArts, conventional notions of what productive artistic behavior looks like were challenged on a daily basis.

5.3.2: Principles of learning and infinite games. It was clear through my observations that video games were a driving interest for many group members and helped form a small clique within the group, although individual participants' taste in video game genres varied. Through my investigation of many of these games, I have found a great deal of use when applying Gee's (2007) learning principles to these video games to uncover in what ways learning was achieved through gaming. I have also found Carse's (1986) description of infinite games particularly useful in understanding how participants engaged with gaming. Although we did not have the opportunity to make use of the Media Commons' gaming center and other options for gaming in the lab were limited, students eventually discovered that games like *Minecraft* and *Roblox*, which operated through web-based interfaces, could be accessed on the lab computers without installation or the need for auxiliary equipment like consoles or controllers, and as a result, these

games became the most popular played during the sessions of the workshop. Allowing space for students to engage in an open-ended way with games like these offered me a glimpse at the productive and social dimensions of learning offered by seemingly idle video gaming, and it also suggested a profound shift in the types of video games played by teenagers and what these new types of games teach.

Driving with David. When David engaged in driving games or videos, I came to understand these activities as representing a number of Gee's (2007) learning principles. As I spoke to David about these interests, it was clear that this was a semiotic domain in which he was incredibly familiar and fluent in, and his exploration of concepts in the virtual domain of auto racing and driving might have translated related domains in the real-world "lifeworlds" (p. 36). This suggested to me that Gee's principles regarding semiotic domains (spaces where unique types of interaction between specific signs, symbols, and texts create a system of literacy) and meta-level thinking across these domains were actively working under the surface (pp. 49-50).

In another way, I wondered what value the simulated experience of driving held for David, a teenager who, much like any other, was looking forward to one day getting behind the wheel of a car. David explained to me that the excitement factor offered by these games was the chance to "crash into stuff" and drive simulated versions of high-status Ferraris and other automobiles (Appendix). In this light, it is possible that David's virtual driving experiences were less of a model or "practice" run at real driving, but rather a way for him to transgress against the order of real-life traffic laws. In these virtual racetracks and city-scapes, he had complete agency to drive as he pleased, and, however vicariously, experience what it would be like to break the laws of driving without consequence. These behaviors appear to line up neatly with Gee's

description of the "psychosocial moratorium principle" (pp. 207-208).

However, his ability to drive simulations of high-powered (and high-status) sports cars also might have offered him a chance to live out the attached ideologies of wealth, speed, and status that were out of his reach. Even though the cars David drove operated in only virtual measures of horsepower and speed, it was still important for him to pick the ideal car. In some ways, it seemed as though the simulation of driving these cars provided a way for him to experience things that he was aware were more fantasy than reality. In this way, it was not the realism of the simulation that was most significant, but rather the ways that that realism could be subverted or challenged in order to play out off-limits scenarios and behaviors. In this way, David might have been playing out Gee's "cultural models of the world" principle, thinking about and exploring his relation these issues and juxtaposing them against his real-world identity (p. 166).

World-building through gaming. *Minecraft* and *Roblox* also demonstrate a number of Gee's (2007) principles for learning through video gaming. Both of these games seemed to be popular in the DigArts lab, and they are remarkably similar games in both visual style and nature of the gameplay. This is likely because of *Minecraft*'s immense popularity, which has led to the creation of free spinoffs like *Roblox*. Although some minor differences do exist, both games feature an interactive virtual landscape (sometimes referred to as a "sandbox" game) in which a user is allowed to travel through and use basic building tools and blocks to create buildings, scripted games, and other features that can be discovered by other users. *Minecraft*'s graphic style is simple, as everything in this world is represented through equally sized cubes or "stones". The simple shapes and textures used in this rendering are suggestive of the low-fidelity 8-bit video games of the 1980s and 1990s, but these stylistic features are expanded into 3-

dimensions. Busting a block into pieces in *Minecraft* feels, feels strangely similar to the video game block-busting I did as a kid in the original *Super Mario Brothers*. In *Minecraft*'s virtual realms, users employ simple tools to chisel away mountainsides, and create their own structures out of stone, wood, and other basic materials. These materials must be scavenged and hunted from the landscape of the game by the user. *Minecraft* users have built elaborate architectural replications of real-world and self-designed buildings, and have also created functional devices like musical instruments and working computer (Miller, 2014). The game can also be played in "survival mode", where the user must fend off block-shaped spiders, zombies, and skeletons while they explore the various realms (personal communication, March 22, 2014). *Roblox* shares nearly all of these characteristics, except for the survival mode, and its' virtual environment is even more simply rendered. In addition, *Roblox* relies more heavily on user-scripted games or scenarios for other users to play, as opposed to connecting it's in-game realms together into a seamless landscape (research journal, February 15, 2014).

In my analysis of these games, part of the novelty seemed to be grounded in the idea that out of the most basic elements, a user could create incredibly complex and creative works. This aspect of the game suggested to me that Gee's "bottom-up basic skills" principle was at work in the game (p. 137). As a *Minecraft* player spends more time in the game, they are able to access new tools and block types, but all users start at the beginning with the basics and must build up from there. Another appealing aspect of the game was its' cooperative nature. As Charlie, Carson, and Drew played together in *Minecraft* during the workshop, it became evident that they were more interested in the exploratory side of the game. I had noticed that they were for the most part sharing the creations of others that they had stumbled across. Occasionally, Charlie looked online for schematics for building a particular contraption and tried their hand at

duplicating it. In these ways, the learners in question demonstrated Gee's "affinity group" principle, by bonding together over shared goals (p. 197). Other times, however, it was evident that the destructive elements of the game were the most appealing to the gamers in the group. Rather than constructing something from the ground up, these group members seemed to be drawn to the pleasure of destruction, as they busied themselves by blasting holes into the ground with explosive blocks or tearing mountains apart with the pick axe tool. This again would be a fitting example of the "psychosocial moratorium" principle, but also might suggest evidence of the practice principle as they were compelled to practice their block-crafting by the simple fun act of breaking bricks (pp. 207-208). After my observations of this gaming session, I began to understand *Minecraft* as a valuable site of digital play that was not so different from types of play that occur in real life. I asked Charlie to describe the appeal of the game to me, and he responded succintly, "It's just like you have an infinite amount of Legos" (personal communication, March 1, 2014). While I have only identified a few of the relevant learning principles in regards to *Minecraft*, I believe that many more principles (such as the probing principle, the discovery principle, and the multiple routes principle) can be applied (pp. 209-211).

I found evidence of more learning principles described by Gee (2007) when exploring *Roblox* with David. By engaging him in his interests and providing him with the opportunity to teach me, he appeared to be enjoying the reversal in roles. David was a student that struggled to match the skills and interests of many of the other students in daily tasks, but clearly felt as though this was his area of expertise as he explained the nuances of the game to me. I also gained the impression through this interaction that he was enjoying the fact that I was struggling to keep up with him, as he laughingly informed me "You're terrible at this" (personal communication,

February 22, 2014). This exchange suggested to me that David was engaged with building "cultural models about learning", and exploring ways in which he could shift his usual role as learner to become an "insider, teacher or producer" and not just a consumer, which is characteristic of another of Gee's principles (pp. 211-212). Socializing and learning with David in this way provided new ways to engage him in the group and allow him to share his interests with me. To David, this experience was likely simple fun, but to me it seemed to provide a positive opportunity to reverse the conventional roles of teacher and student and to share a moment on the same virtual terrain.

Jessica's new skin. Many of the games that the participants had discussed playing outside of the workshop involved notable elements of fantasy, which were also often reflected in the work created by participants. When Jessica explained the gameplay of the *League of Legends* to me, she spoke rapidly in a flurry of insider lingo. In these ways, she also demonstrated her engagement with the semiotic domains principle, the insider principle, and the design principle (learning to appreciate the designed elements of the domain) (Gee, 2007, p. 207). She had also formed affinity groups within the game, and had found a specific role in her "guild". In the case of Jessica, the link between her gaming experiences and Gee's identity principle was demonstrated through her aspirations to create skins for in-game avatars (p. 208). In creating and trying out new skins, identity shifting takes place quite literally and instantly on demand. Through her efforts, Jessica had started with basic pencil sketches of a character, which then needed to be colorized and refined before they could be submitted to Riot for use in the game. Although Jessica had not yet had any skins accepted by the game, she had aspired towards this goal and was interested in finding ways to accomplish it. In her sketchbook, Jessica had created a number of characters that she hoped to one day bring into the game. It was clear that Jessica saw

these goals as challenging but within her grasp, which suggested to me that the she was encouraged by the "regime of competence" principle (p. 111). Many of these designs blurred the lines between human and animal forms, notably demonstrated in the anthropomorphic praying mantis character she had first shown me during the workshop. I asked her during an interview about this theme in her work, which she explained was common within the game, but she also explained that she, in part, was working with this theme to meet the criteria of another gamer who had enlisted her to help with his idea for a character skin.

Infinite gaming. In the design of this study, I was also initially concerned with providing a place in which play might operate as an educational learning process. To provide a foundational understanding, I drew upon Caillois' (1961/2001) definition of play as free and non-obligatory, separate from daily life, spontaneous, and uncertain, without a predetermined outcome. Caillois also states that play is unproductive (in that it produces no goods or new elements), and has a special awareness of the distinctions between "make believe" and "real life" (p. 10). Throughout the course of the workshop, I attempted to incorporate these ideas into the daily activities I provided, allowing for an open-ended exploration of tools and software to lead students to their own results without a predetermined outcome. This approach to learning seemed to have a number of positive benefits, and it encouraged some of the less experienced participants an opportunity to learn the tools of Photoshop at their own pace and in their own way. However, the subject of play became more significant in the case of the students' interests and experiences in the video game *Minecraft*, which seems to fit neatly into the criteria that Caillois sets forth. As an activity in the workshop, it was certainly non-obligatory and spontaneous. I provided participants with no prompts to play the game: they simply decided together to play it on their own without my interference. Furthermore, *Minecraft* is not a game

that has a clear objective or conclusion to reach by "winning". Instead, it embraces an open-ended "sandbox" style of play, which allows users to roam around the virtual landscape and use their rudimentary tools to chisel away stones, build structures, and create new virtual environments. As I observed the participants as they played, they seemed to revel in the limitless aspect of the game and were happy to explore the virtual world without much purpose or direction. This also seemed to suggest that *Minecraft* (and copycats like *Roblox)* could be thought of in terms of Carse's (1986) "infinite games" in which a game is played for the purpose of continuing the play, as opposed to bringing the game to an end (p. 3). However, this type of game is not particularly new or innovative. Liao (2008) has examined another game, *Second Life,* as a type of cultural interface in which users can collaborate and interact to create within a virtual environment. This is another example of a "sandbox" game, although it is one that none of the DigArts participants had ever used. Although *Second Life* had a brief moment of popularity in the past decade, it seems to have largely been replaced by *Minecraft* as the sandbox game of choice for younger generations. The popularity of *Minecraft* among workshop participants was notable, and most group members reported that they had played it at least once. Some students explained that there were even informal *Minecraft* clubs that met after school to play together, although few of our group members attended these gatherings.

I came to this study with a predisposed attitude that video gaming could be both a productive and social activity. There is already a great deal of research already that supports this claim (Gee, 2007; Han, 2011; Ito, 2009; Jenkins, 2009; Liao, 2008), and I had hoped for my study to provide more evidence of this hypothesis. From my analysis of this data, I argue that it is evident that games like *Minecraft* offer a playful, open-ended experience to users that is both productive and social at its' core. Games like *League of Legends* also encourage social and

productive opportunities to users through its' cooperative gameplay and market of user-designed skins. I suggest that these instances may signify a trend that video games that are most popular today, at least among this group of participants, are those that have socially transactional aspects and that allow a more open and exploratory gameplay.

5.3.3: Learning in the rhizomatic third space. Other tensions in our third space seemed to occur when considering the fundamental differences between in-school and third space pedagogy. In these cases, I found it especially worthwhile to apply understandings of the rhizome as an anti-structural metaphor initially described by Deleuze and Guattarri (1980). In my analysis of this space, I have turned to Wilson's (2003) characterization of the rhizome as a way to visualize the behaviors of visual culture producers. Wilson notes that the field of formal art learning is better described as a tree-like "striated" top-down structure as opposed to the "smooth flow" seen in rhizomatic systems (p. 36). Here, I will extend these understandings to the events of the workshop, and discuss how rhizomatic anti-structured pedagogy might describe how learning occurred in the third space of DigArts.

There are a few ways in which I initially saw parallels between the workshop and the model of the rhizome. Deleuze and Guattarri (1980) use the rhizome to describe non-hierarchical systems, and begin with a discussion of rhizomatic plants like grass, whose roots interconnect and spread outward as the system grows. They also note the rhizome's importance when understanding the social behaviors of pack animals like rats and ants (pp. 6-7). Both of these aspects of the rhizome seemed to translate well to the nature of our third space, as the scope of the workshop grew and evolved as participants built social connections between each other and brought their respective visual cultures into the space.

Deleuze and Guattarri (1980) further describe the rhizome through a number of principles

that are useful for this illustration. The first principle of connection argues that any point of a rhizome must be connected to any other. The second principle of heterogeneity is that a rhizome is a combination of these branching connections that comes to concretion at certain points in bulbs and tubers (p. 7). These principles appear to describe the ways in which students (all of different backgrounds, skill levels, and desires for learning) began to make connections between each other's respective visual cultures. It also describes how nodes or "bulbs" of convergence seemed to arise at certain sites shared by learners (such as video gaming, anime, and so on). The rhizome is also associated with a third principle of multiplicity, which states that there are multiple trajectories (or "lines of flight") to make connections between parts of a rhizome (p. 8). This seems to accurately describe the "nomadic" ways that workshop participants worked within the group at their own pace and direction, wandering "with pauses, straggling, and forward rushes" toward whatever called their attention on any given day (Deleuze & Guattari, 1980, p. 23).

The rhizome also is associated with an "asignifying rupture", which means that a rhizome may be broken but is in a constant state of re-growth along old lines or new lines of emergence (p. 9). This seemed to be demonstrated especially well when my plans for the workshop went awry and the day's session went in a direction for which I had not prepared. A notable example of one of these "ruptures" in the workshop arose from technological difficulties and led us to shift our attention to discussing the Oculus Rift. In this case, the pathway to learning I had planned to follow had been broken, but new lines of inquiry and exploration emerged somewhat organically. My invitation to an impromptu conversation around a shared interest seemed to produce a more engaged and lively atmosphere than any prompted activity that I had put in place during the previous weeks. During this time, students were eager to share their thoughts about

what was possible with this new technology. They had begun a spirited discussion about what they would do with the technology, what games would work best with it, and what kinds of things would be fun to experience in virtual reality (research journal, March 8, 2014). Although our workshop's opportunities for video gaming were limited, this conversation allowed us all to explore the subject together for a few moments, and it had arisen organically without prior planning. This experience in fact only emerged due to failures of planning. During this time, I reconsidered my role in the group and I behaved as less of a leader and more of a listener. Listening to the direction the day was taking us allowed me to locate a node of shared interest within the group and attempt to refocus our attention on that point. In this way, an organic and emergent approach to the workshop's content and curriculum (as well my own pedagogical aims) became one of the most valued aspects of learning in this space.

I argue that the rhizome provides a useful model for understanding how learning occurs in the third space. My experiences in the DigArts workshop have provided me with evidence that third space learning is informed organically by the contributions of all of its' members. The rapid outward expansion and connection of these contributions led to some of the more unexpected and positive developments of the workshop. Because Wilson (2003) notes that visual culture itself is rhizomatic in nature, it seems appropriate that a third space environment that focuses on learners' visual cultures would also bear some of these same characteristics.

5.4: Challenging taxonomies of art and learning

In the literature I have presented, certain efforts have been made to categorize the types of informal art created by children, organized into a simple taxonomy. In the course of this study, I have attempted to test these systems of categorization against the events of the workshop. In some cases, these taxonomies have provided a useful foundation for understanding what took

place, but others were complicated by my findings. In the section that follows, I will discuss how the events of the DigArts workshop might support and/or challenge existing methods of categorizing students' learning through art-making.

5.4.1: Locating DigArts on the learning spectrum. Coffield (2000) argues that specific instances of informal learning can be placed along a spectrum that is defined by the extent of framework or curricula (how clearly learning objectives are mapped and assessed), whether the learner is aware of their learning or not, and the setting in which it takes place (p. 55). To begin, I hoped to identify exactly where along this spectrum the third space of the DigArts workshop might be situated. When designing the workshop, I hoped to orient its goals somewhere between the spectrum's poles of formal and informal learning by providing some amount of structure in the form of the daily activities for those who desired it, but also by allowing the freedom for participants to choose to follow these prompts or not. I also attempted to provide opportunities for intentional learning in the prompts, but I also paid close attention to how unintentional learning might be taking place. Additionally, the setting of the workshop (being held on the premises of a major university, and in the context of an academic study) provided a number of tensions between learning informally, at an institution of higher education, and as a "third space". In these ways, I envisioned the workshop sitting somewhere in the middle of Coffield's spectrum, but leaning towards the informal side of the scale. However, I came to understand that this workshop served different purposes for each person involved, and that each participant would likely place the workshop at a different spot on this spectrum. For the novices who desired more guidance, the workshop would need to become more formal and structured. For the participants who were more self-directed in their activities, the workshop would likely be placed closer to the informal end of the spectrum. I was able to confirm this through repeated contact

with each participant during the course of the workshop, as I observed their work and communicated with them about their goals for the day and from the workshop in general.

5.4.2: Classifying student work. I also attempted to test models that have been used to categorize various types of student-produced artwork. Haanstra (2010) argues that children's informal artwork can be placed into categories of applied art, popular culture, personal experience, and traditional art (p. 271). Throughout my experiences in the DigArts workshop, I believe this clear-cut and delineated approach to placing student work into neat categories, while helpful in identifying various characteristics and functions of art, fails to recognize just how much these lines are blurred in self-directed art-making, particularly in digital collage and illustration. During our sessions, I saw a great deal of self-initiated work that traversed these boundaries and blurred the lines between the categories set forth by Haanstra, which is demonstrated through a discussion of the variety of work displayed on Eva's deviantArt gallery.

Very little of Eva's gallery provided a glimpse into school-based art-making, but certain pieces seemed to suggest an approach more in line with "traditional art" than with popular culture. This was particularly evident in the case of *Into the Light*, which Eva describes as "just some paint practice on the computer." In this painting, she demonstrated her talent with traditional painting concepts translated digitally through her pen tablet, but she explained that the wolf subject of her painting was inspired one of her favorite manga characters. Her style was much less cartoonish than most of her other work, and is even a more realistic interpration of the orignal character. Although she described it as a product of practice, it stuck out in her gallery as one of the more sophisticated "traditional art" style pieces. However, these lines were often blurred as she practiced anatomy studies with anthropomorphic characters and popular figures from her favorite anime and cartoons, and as she explored her own biographical narrative and

identity in a visual style informed by these sites. This blending of traditional art learning practices with Eva's own popular culture interests and life story makes for a rich site for demonstrating the overlap between fine art, popular culture, and personal experience art categories described by Hanstraa (2010). While each of these categories certainly were evident in the work exhibited on Eva's gallery, the division between these areas were often difficult to identify. This suggests to me that, at least in the case of Eva and other students in the workshop, this effort to classify art into clearly delineated types falls short of recognizing just how much overlap between these areas there naturally are in self-directed art-making, particularly when it is so closely tied to sites of online and digital visual culture.

5.4.3: Geeking out. Another taxonomy I was interested in exploring in the DigArts workshop was Ito's (2009) categorization of teen online engagement with digital media. In this literature, Ito suggests that student work online often fits into two genres of participation: interest-driven and friend-driven. I was also interested in examining Ito's argument that teen engagement with new and social media online can often be seen as a continuum of "hanging out", "messing around", and "geeking out". However, Ito does recognize that this act of categorization is inherently limited. She argues that youth may cross these borders at any time, and that the lines between genres of participation may erode under the right circumstances.

Through my observations and interactions with DigArts participants, engagement in a variety of media seemed to move across these borders easily on a daily basis. For the most part, the students' activities seemed to be mostly interest-driven, centered on a popular video game like *League of Legends* or *Minecraft*. There were students who typically were interested in "hanging out" in the classroom setting, but were more engaged with "messing around" and "geeking out" at home. This included Carson, who seemed to use the workshop mostly for its

social connections. As a result, his production of new work during the workshop was fairly limited, and he spent most of his time "hanging out" in general, but also on his favorite social media, watching videos, or meandering in *Minecraft*. However, it appeared to me that he was more intensely engaged with art making at home. Carson seemed to "mess around" with a variety of media on his own, and he certainly "geeked out" with his video gaming. According to Ito, "geeking out" is indicated by an intense fascination and engagement with a single site, and for Carson, this seemed to be the semiotic domain of video games, particularly violent or action-oriented ones.

On the other hand, some of the novices of the group (such as Henry, Jon, and Hector) appeared to use the workshop time as an opportunity to "mess around" more often than the more experienced group members, and the novices in fact produced much more original work during the sessions than their expert peers. I suspect that these inexperienced students were less likely to have a media ecology (access to technology) at home that allowed for this kind of open-ended play and experimentation. They tended to apply themselves to the daily activities more, and appeared to be more engaged in the processes than simply "hanging out". However, these students rarely demonstrated an intense interest in any one subject, but they instead seemed to use the workshop as a way to survey a number of new ideas and processes.

Eva clearly demonstrated a movement across these boundaries throughout the workshop, as she would work intently on one thing on certain days ("geeking out" with her illustration), and on others she would simply be "hanging out" (watching her friend via livestream). Understanding the specific needs of each member of the group in these terms led me to create what I hoped to be the ideal learning environment for everyone, and Ito's description of these different levels of engagement helped inform the types of reinforcement and guidance that I

provided to each participant. Through these examples, I was able to confirm Ito's assertion that teen engagement in digital media is often fluid and requires a less rigid system of classification in order to be fully understood.

5.4.4: Autodidactic learning and the digiterati. Another concept from the literature that I was interested in understanding in light of the DigArts workshop was that of the autodidactic learner (Livingstone, 1999; Solomon, 2003). I began with the assumption that an autodidactic learner was engaged in some sort of "self teaching" behavior, was picking up knowledge in non-teaching situations, or exhibited an "ornery" rejection of being taught (Solomon, 2009, p. 3). I also drew upon Livingstone's (1999) argument that autodidactic learners are those that take on a learning project or goal unrelated to needs at school (pp. 10-11). I was able to identify just a few participants in the workshop who did fit these criteria for autodidactism. Most of the participants who were the most vocal, and who were established early on as experts within the group, demonstrated autodidactic behavior, especially Eva and Carson. Eva's independent nature was evident as she forged her own habitat in the corner by herself week after week. Although she wasn't withdrawn from the group entirely, this behavior did appear to provide a physical buffer between herself and the rest of the participants, as she faced the wall often with her headphones over her ears. Eva often engaged in her own self-directed work as opposed to, or in addition to, the daily activities. Her work was sometime project-oriented and rarely related to her learning at school. Instead, it was intensely autobiographical and populated by imagery collated from her popular culture interests. She also seemed to learn from non-teaching situations, particularly in the cases of her watching Emily's livestream or browsing deviantArt for inspiration. While she did not exhibit a hostile rejection of being taught, she did not seem to need much help and rarely asked for assistance on a project. She was eager to share and talk with me, but she seemed

content to work through most issues on her own. Carson exhibited these same qualities, but seemed to perform more autodidactically outside of the space of the workshop, when he was at home with the tools he was most comfortable using. He often presented me with evidence of what he was doing outside of class, which typically were illustrations of characters he had designed, short animated clips and GIF images, and other artifacts of digital media. He similarly did not ask for much assistance during our time together, and he seemed content to work independently.

I was also interested exploring the concept of the "digiterati", or the notion of an elite group of digital natives said to be populating classrooms since the end of the 20th century (Stafford, 1998). This term seemed troublesome to me, as it implied that adults should perhaps be fearful of the implications of a generation of teens knowledgeable about technology. It is ironic that the digiterati that Stafford claimed filled our classrooms at the end of the 20th century would still be in classrooms, but are now old enough to be working as a new generation of teachers. While it is difficult to confirm whether this elite class of learners really existed in the first place, it does seem evident through this study that some art classrooms are in fact offering a great deal of support for digital arts. Through my interactions with various participants, it became clear to me that Ms. Blaser (of the digiterati generation) appeared to be offering a fair amount of digitally-oriented lessons and courses to students, and according to these students, they had few issues with access to computers, tablets, and other digital art-making resources at school. However, Eva lamented that while these resources were available, her school did not offer much by way of a digital arts curriculum. Eva explained that she would use the art room during lunch period to use the drawing tablets, which were "just gathering dust". While Eva's school was not yet utilizing these resources to their full potential, it is evident that some of the

larger schools in this area were already doing so and encouraging digital art as a central part of their art curriculum. This might signify that gaps between student and teacher comfort levels with technology are closing, and that as more "digiterati"-generation teachers enter classrooms, art educators will likely continue to adapt their teaching and include more digital art making and learning opportunities.

5.4.5: Charting new paths to self-efficacy. It was also useful to examine the case of each participant in terms of Manifold's (2009) factors for self-efficacy as an artist. To attempt to categorize these participants further, I drew upon the five sequential stages that she suggests occur on the path to self-efficacy, which is defined as the adoption of a self-identity as an "artist".

In Manifold's (2009) first stage, a person exhibits a desire to draw pictures. In the case of the DigArts workshop, I expanded this definition to include other forms of media making, and looked for evidence of this stage in a variety of forms. I suspected from the outset that most of the students participating in a workshop such as this would exhibit evidence of this first stage, and I was able to confirm this during many of my early conversations and interactions with group participants. On their first day introductions, many shared their interests in art-making verbally, and later offered me a glimpse of the types of digital illustration, animation, and other art-making they engaged with at home in their free time. Even David, who seemed to be more engaged in consuming digital visual culture as opposed to actively producing it, demonstrated his interest in digital drawing and mark-making in the Muro app, although the level of sophistication in his work was at a very basic, exploratory level.

It also seems natural that most, if not all 13, of the regular participants in the workshop would exhibit evidence of entering Manifold's (2009) second stage on the path to self-efficacy,

where students gain inspiration from their interactions with popular visual media and begin sharing their resulting work with their peers. This was clearly evident in Jessica's engagement with *League of Legends* and the artwork for character skins. Not only was she sharing this work with peers in our group, but more importantly with her fellow gamers and close friends she gained through her specific affinity group in the semiotic domain of this video game. Eva's artwork also seemed to be inspired by the types of characters and artistic styles she encountered in games like *Animal Farm* and her interests in manga and anime. She also appeared to use her deviantArt gallery as a way to build and connect to a group of peers with similar tastes and interests in specific sites of visual culture. Other cliques that developed within our own workshop suggested to me that many other group members had entered this stage of Manifold's model. In the cases of Henry, Jon, and Hector, much of their work during workshop projects was tinkering with and manipulating images they had found online, and they were typically pulled from popular culture sources such as movies and comics. The circle of peers these works were shared with was mostly limited to the three students themselves, although this group dynamic (learning along with close friends) appeared to be a valuable way for them to explore new ideas and art processes and to ease anxieties. Calvin and Heather also seemed to operate as their own clique in a similar way, relying on each other mostly for feedback and peer support. Even David exhibited a few finished digital drawings of various racecars he had created in Muro, which suggested that he as well had entered this stage of Manifold's model.

Roughly half of the participants in the DigArts workshop seemed to be situated at the third stage of Manifold's (2009) model for achieving self-efficacy. In this stage, Manifold argues that learners receive praise and encouragement from teachers, parents, peers, and others in various social circles. This encouragement feeds more intense engagement with art-making, and

the learner takes on more challenging tasks and begins to compete against peers. This was especially visible in cases like Eva and Heather, who participated in competitive events like art shows. Eva took great pride in her accomplishments competing against peers, and she appeared to enjoy the opportunity to receive positive feedback about her work. Allison, Calvin, Carson, Charlie, Jessica, Henry, Hector and Samuel all appeared to have entered this stage, and they expressed that they had a good deal of support in regards to their art-making at home and at school, although I could not verify whether or not they viewed their enterprises as competitive. It appeared through my observations that there was some small amount of tacit competition evident in the workshop, as participants were naturally drawn to "check out" what other group members were working on. Seeing the results of more advanced students might have set a high bar for some of the novices in the group and encouraged them to challenge themselves more, but this competition between group members also might have been what led to the anxieties experienced early on by Henry and Kristin.

Roughly half of the workshop's 13 regular participants also indicated that they had plans to study art to a more serious degree after completing high school. This suggested that these students had moved into the fourth stage of Manifold's model, and were perhaps more serious about art as a driving factor in their lives than the other half of the group members, who were still working out the place art-making had in their own lives. Carson, who was home schooled, had aspirations to enter college early and expressed that he would very likely be studying digital art or game design. Charlie also indicated during the first day's introductions that he was considering going to school for game design. Heather, Eva, and Jessica also expressed similar goals after high school, hoping to learn more in terms of graphic design.

One interesting anomaly that became evident to me was found in the case of Kristin, who

entered the workshop in the first few weeks with an eager attitude to try new things, and who also said that she was considering art as a career choice, although she was unsure of in what medium. During these first few weeks, I observed Kristin earnestly attempt to keep up with some of the more advanced students and challenge herself to take on difficult tasks in media that she was entirely unfamiliar with. When she stopped showing up to workshop sessions, it suggested to me that the open workshop environment had forced Kristin to move somewhat prematurely into stage three of Manifold's model, and I suspected that the pressures of competition against others in the group had been too much for her early on. I attempted to confirm this by contacting Kristin's mother to ask about what she knew regarding Kristin's motivations for leaving the group, and she admitted that Kristin had felt somewhat overwhelmed by the new processes and media and had decided it wasn't particularly what she was interested in. At the conclusion of the study, she still maintained a goal of learning about art at a higher level, but was unsure whether digital art-making would be a part of her focus. In the first day introductions, Kristin explained that she was hoping to try a variety of new things in her quest to understand the place of art in her life. It appears as though the workshop may have helped provide some answers to her questions, even if those answers indicated to her that digital art-making simply was not her calling.

Of the 13 workshop participants, there were several group members that had aspirations to work one day in various fields of digital art and media making, although very few had made tangible steps in that direction. Manifold's (2009) criteria for the fifth and final stage of self-efficacy is a commitment to the crafts of art-making and a desire to seek a career in art, and two students in particular appeared to be well on their way to achieving these goals. Eva expressed to me at various points throughout the workshop that she had been "commissioned" to create

illustrations for peers gained online through deviantArt and other social networks. She also claimed to be earning extra money by designing logos and other graphics for businesses, which she had made contact with through the help of her father. It is unclear to me how much she gained monetarily from projects like these, but it did indicate that she was actively engaged in artistic economies both taking place online and in the real world. In addition to Eva, Heather had also taken steps to achieve her goals of working in the arts. A few weeks after the conclusion of the workshop, I received an email from Heather who was seeking a reference for a graphic design internship at the University that had been posted for the summer. Because both of these students appeared to have moved through all four previous stages and had begun to see their work as professional and highly valued by others, I suggest that they could be situated near or in stage five of Manifold's model for self-efficacy.

Although this model was helpful in classifying and understanding the artistic aspirations and behaviors of the teens in the DigArts workshop, there are a few points I had difficulty applying to this particular group of students and the issues they presented. Manifold's (2009) model is designed in a way that implies that achieving self-efficacy as an art-maker must necessarily include training and education at an institution of higher education and seeking a career in art-related fields. Because definitions of what it means to be an "artist" in the digital realm are shifting, and the products of amateur creators who do not seek careers in art-making are increasingly influential and far-reaching, I suggest that her model for self-efficacy needs to be amended to more appropriately address what this concept means for a new generation of online media creators and consumers who are engaged in participatory visual culture learning communities (VCLCs) described by Freedman (2013).

While the first three stages of Manifold's model can be translated easily into the case at

hand, I argue that stage one might be better understood as a desire to "make" digital media in general, as opposed to the traditionally recognized artistic gateway of "drawing". I also argue that the first stage might also include the first signs of interest in a specific site of visual culture. In stage two of achieving self-efficacy, these learners might gain inspiration from these sites of visual culture, and locate peers with similar interests in VCLCs both online and offline. In this stage, learners could be described as beginning to "mess around" with various forms of digital media making and situating themselves in their specific semiotic domain as a producer. As learners move into stage three, they might begin to receive praise and recognition from peers in this domain[24]. Additionally, the learners will take on more complicated learning "projects" in stage three, often in response to the work, requests, or "commissions" of other peers. These are ways in which participants in online VCLCs might compete and measure their work against that of their peers. Learners in online VCLCs might move to stage four when they begin to more seriously seek to refine and supplement their learning in an area of media making. In this model, higher learning does not necessarily imply enrollment in college or other institute of formal learning. Instead, it might be expanded to recognize the ways that learners seek out relevant resources through online tutorials, discussion with peers, modeling the work of others, and collecting, archiving, and blogging libraries of images and other artifacts. In this way, learning from other "experts" within the VCLC itself appears to be the most valuable way to achieve self-efficacy. In this new model, stage five and self-efficacy might be fully achieved when a learner is heavily invested in producing work for the VCLC, and when they are seen by themselves and others as a valued member within the group. Learners who achieve self-efficacy in this model are active participants in online media economies and marketplaces of image makers and consumers,

[24] Online praise takes the form of social media shares, likes, notes, and other forms of commentary between VCLC members.

but are not necessarily working in this marketplace as a profession. The *League of Legends* marketplace of character skins serves as a useful example of this type of economy, as do affinity groups found in deviantArt, YouTube, and other social media platforms. These outlets for creative production are largely populated by amateurs who, while intensely committed to their art-making, seem to do so for the pure enjoyment they receive from participating, as opposed to considering their art-making as part of a career. This amended model recognizes that self-efficacy might be redefined to address all media producers who have found ways to integrate art-making meaningfully into their daily lives, even if they are not able to support themselves economically from their art-making enterprises. For every Justin Bieber who is discovered online and whisked away to worldwide fame, there are perhaps millions of YouTubers who contribute in visual culture without the promise of acclaim. In this way, the notion of the amateur artist and media producer becomes complicated, and begs further investigation to understand the role amateurs and outsiders play in online media economies.

Chapter 6: Summary of Findings

6.1: Introduction

The issues that I investigated in this study arose from my own personal experiences as a teenager who relied upon the emerging online world in order to reach out to the art worlds beyond my family's farm in the middle of nowhere. Because the online landscape has continued to change dramatically in the years since, I felt compelled to uncover how today's teenagers used online resources and tools to consumer and produce artifacts of visual culture, and to understand how the worlds of self-directed and formal art learning are at odds, particularly when it comes to dealing with online visual culture. When I began investigating these issues, I was introduced to literature in the discipline of Art Education that described a pedagogical third space in which students and teachers could meet, cooperate, and share their respective visual cultures outside of the school setting (Staikidis, 2006; Wilson, 2003; Wilson, 2008a; Wilson, 2008b).

I traced these ideas back to the post-colonial third space theories of Bhabha (1994) and realized that there was still a major lack of understanding of the implications of third space learning, particularly in terms of the tensions that arise when two opposing systems of power (the oppressor and the oppressed, the art world and the non-art world, the student and the teacher) collide. While much of the literature in Art Education regarding third space theory noted with optimism the successes of third space learning environments facilitated between teachers and students, I was interested in understanding how these insights might be complicated by looking back to Bhabha's model of the third space as a discourse of dissent, characterized by conflict as opposed to cooperation. As a result, the focus of this study was to identify the unique tensions that arise in third space environments, and to examine how these tensions place third space

learning at odds with both formal and informal art learning. With these issues in mind, I devised the following research questions:

Central question.

1. What tensions exist in a third pedagogical space that is focused on online visual culture?

Issue questions.

1. What are teenagers learning through their production and consumption of online visual culture?
2. How are hybrid forms of learning in the third space shaped by students' formal and informal learning experiences?
3. What understandings from the third space challenge existing models for understanding formal and informal art learning?

In order to investigate these questions, I designed the third space of the DigArts workshop. I hoped that this workshop would attract a group of participants who were interested in self-directed digital art-making, but who were also interested in the social and cultural benefits of working with a group of like-minded peers. I also hoped that it would provide an opportunity to examine the tensions that arise in the areas between formal and informal learning, art and non-art, and other dichotomies relevant to third space art learning. In the previous chapters, I have provided a comprehensive description of the events of the workshop, as well as an analysis of those events in relation to my research questions and the literature that informed this study. In the chapter that follows, I have synthesized my findings according to these questions and offer their implications for Art Education theory. In addition, I will offer my suggestions and identify

potential points of continued research for other educators who are interested in developing third space experiences with other learners.

6.2: Synthesis of Findings

6.2.1: Tensions in the third space. Through my investigation of the DigArts workshop, I was able to uncover a number of tensions that contributed to a greater picture of what learning is like in the third space. I was able to classify these tensions according to their relevance to concepts of space, social interaction, and pedagogy. When dealing with a third space that was situated in the physical space of an institute of learning, I found that negotiating degrees of structure and anti-structure became necessary, but also developed as a condition of the third space and the varied needs of the participants within it (Wilson, 2008b). While the University required some amount of accountability, the students required the freedom to tinker and experiment without these structures in place. My role as a facilitator was to mediate these two worlds and create an environment where both needs were met. I also discovered that the concept of the third space might better be understood as a social relationship, and that it can take place in many spaces that are not particularly physical. For example, the case of Eva livestreaming with her friend created a space of learning that existed only online, but was just as valuable as the types of learning offered in the confines of our computer lab. In this way, I argue that the lab was just one of many environments of the third space created by the workshop, with others springing up somewhat organically both online and offline.

Other tensions uncovered during the workshop were more social in nature. When students like Kristin pushed back against the rules that had been established for the room, this signaled to me that there was some amount of conflict taking place. Unpacking this conflict led me to understand the third space as a place where social rules also emerge and shift, and are

sometimes contested between the student and teacher. I also saw evidence of the in-group phenomenon presented by Wilson (2008b). I have argued that this social dimension of the third space might have allowed some participants to make meaningful connections with others who shared their interests. This appeared to be the case for David, whose reticence from the group was eventually overcome by the shared experience of a *Minecraft* session. However, it also might have functioned in a way that alienated others like Kristin from the group, as she discovered that her skills and interests did not necessarily align with those of other group members. I also discovered that significant tensions can arise when difficult subject matter is shared in the social third space, as was the case when discussing Eva's deviantArt gallery and the complex issues she explored through her artwork displayed therein.

The final category of tensions that I was able to discern pertained to concepts of pedagogy in the third space. I found through my observations that the third space of the workshop offered different things pedagogically to each student according to their needs. Carson was a highly motivated self-teacher, which appeared to be a valuable asset to his learning as a home-schooled student. However, what he lacked in his home-schooling was the chance to interface with peers, to share his work with like-minded others, and to observe other models for art-making firsthand. On the other hand, novices likely found that the workshop provided them with more structure and guidance in the form of the daily tricks and increased intervention on my part. My role as facilitator of the space was in many ways to negotiate when to attach and when to detach from group members and their activities. This also suggested to me that notions of structure and anti-structure hang in delicate balance in the third space, particularly in terms of pedagogy.

In the DigArts workshop, the tensions that became present helped me to come to new understandings regarding the unique challenges and benefits of learning in the third space, and to verify a great deal of theory and literature that already surrounds the topic. This study was necessary, in that it presented a practical and measured assessment of one effort to create a third space. The tensions that arose in DigArts kept daily events, social hierarchies, and the "rules" of the room in constant flux, and it became clear to me that the physical room we inhabited was only one dimension of third space learning that was occurring around me. The third space, in fact, occurred at any point in time in which the participants and I met half way between our life- and art-worlds. The third space is perhaps best characterized by the fleeting moments and encounters between teacher and student that subverted structures, created tensions, and led to learning on both sides of the learning system. These moments could not, and should not, have been planned. Instead, the third space depends on elements of spontaneity and surprise to inform the pathway to learning (not only about art, but about each other).

I argue that third space pedagogy might be considered in terms of rhizomatic models of complexity, emergence and "smoothness" of pedagogy, which I confirmed through my own interactions with learners in the third space. As opposed to formal schooling, which usually operates on a rigid bell system and tends to adhere strictly to determined courses of learning in order to meet a pre-determined curriculum, the third space of the workshop allowed participants to play it by ear to a large degree. Some of my own improvised pedagogical experiences arose out of situations in which technical issues had forced us to change plans mid-session. This is certainly no new subject to classroom art teachers in the school context, as flexibility in pedagogy is a skill that seems to be valued by educators across contexts. However, with little more than a roadmap for our day's activities in the third space, it allowed me freedom to switch

directions when necessary, or to call attention to emergent events that would provide unexpected paths to learning. This was evident in the case of group discussions that emerged almost on their own, such as our conversation surrounding the Oculus Rift. Although I had not initially planned for this spur-of-the-moment discussion to become the focus of the session, it quickly caught the participants' interest and it was difficult to reel them back in after the excitement of the discussion had taken hold of their attention. We were able to continue this discussion because the goals set out for the day were flexible and allowed us to shift attention to moments of learning that provided greater impact. It is difficult to imagine a classroom teacher being able to scrap a lesson mid-period in favor of a talk about video games, but in the third space this sort of approach seemed not only permissible but was desirable from a pedagogical perspective.

The tensions examined in this study have augmented my understanding of how the third space operates as a place of learning. I have particularly been able to come to the understanding that while cooperation and co-creation plays a major part in the third space, the conflict of disparate ideas plays just as much of a role. From this evidence, I am able to argue that tensions in the third space can not only be productive for learning, but they are also inherent aspects of a system that creates a collision between two opposing parties (such as student/teacher, art/non-art, formal/informal learning). In this cultural collision, tensions seem to indicate a disconnect in the values between the two parties. In my experience, a discussion and exploration of these tensions provided meaningful real-world implications for the learners and teacher alike.

6.2.2: The online visual culture of contemporary teenagers. My analysis of the DigArts workshop also enhanced my understanding of contemporary teenagers' engagement with online visual culture, as gleaned from the literature and my own personal experiences. During our time together, I observed group members occupying a wide variety of visual culture

learning communities (VCLCs), many of which were largely based online and commanded a great deal of their free time at home. These VCLCs included fan-art communities, image-based social networks, various video games, and other forms of online visual culture brought into the workshop by the participants. In many of these cases, I was able to point to specific characteristics of Jenkins' (2006) convergence culture, and argue that a great deal of contemporary online visual culture references back to older forms of media, but responds and interacts with it in a way that is much more dynamic than older models of media consumption. In this dynamic system, I argue that amateur creators are gaining increasing power to find an audience for their endeavors. I also respond to Keen's (2007) fears that a cult of the amateur is polluting the media world with their mediocre creations. Although Keen may have a point about the amounts of inanity and absurdity that are prevalent in amateur online visual culture, I have found that these qualities are the same qualities that command public attention the most. When an inane YouTube video or other artifact goes viral, this is not a sign that public taste has declined, but it is instead a sign that there may be some psychological lure or pleasure that is appealing to people on a grand scale. I also argue that online dwellers in visual culture are incredibly adept at self-selecting individualized streams and channels of interest, tuning into providers of material that are of most use to them and tuning out that which is not. I would likely gain little from frequenting the same sites and watching the same racing videos that David did, but for him these were worthwhile sources of media that fuelled his curiosity and learning in other areas. I posit that Keen's argument is one of taste, and that "good" taste appears to be increasingly individualized in online experiences.

Through my observations in the DigArts workshop, I was given the opportunity to witness students engaging with a wide range of visual culture sites found online. As I had

mentioned in the discussion of the previous subquestion, a great deal of the visual culture consumed by the workshop participants during our time together took the form of working with various video games. *Minecraft* and *Roblox* were two of the most popular games played in the classroom, and both of these games followed the open-ended "sandbox" format of gaming that encourages users to explore and interact with the virtual terrain to build their own in-game creations. As opposed to popular games of the past which presented users with a top-down, pre-determined mission to be accomplished, I believe the immense popularity of these types of games signify a greater embrace of playful "infinite" gaming that is much more open ended and encourages an exploratory experience with gaming. In the case of games like these, cooperation and creativity are valued as key skills for success, which suggests to me great value for educators interested in pursuing new forms of digital visual culture in their classrooms.

Much of the visual culture consumed by the participants of the workshop during our time together appeared to me to translate across multiple forms of media, particularly in the form of memes. Throughout the workshop, students appeared to create and consume work that riffed on and remixed elements from other popular sources. For example, in my interactions with Eva, we had discussed a character from the video game *Animal Crossing,* which also later appeared as a Cubeecraft character and was also referenced in an online cartoon found by Carson. In this case, the visual culture site of *Animal Crossing* did not seem to belong neatly into any one category of media. *Animal Crossing* may have started as a video game, but part of its popularity may be rooted in its ubiquity, as it is practically impossible for a web-savvy teen to avoid its saturation of the online market of images. This is not a new idea, as cartoons have historically inspired toys (or vice versa), which then inspired movies, which then inspired toys, and so on. As cultural objects, digital visual culture sites like this travel easily between boundaries of media, inspiring

spinoffs and fan art in a variety of forms. However, corporations appear to hold (or enforce) much less ownership than in years past. This is evident in Cubeecraft characters, which are provided for free to anyone who wishes to download them. This allows fans to print and create their own toys of superheroes and other copyrighted characters instead of having to buy them in a store.

The forms and subject matter of the digital visual culture consumed by these teens clearly informed the artwork they produced, also in memetic ways. This was evident in the case of Carson's drawings, which reflected elements of his favorite video games and cartoons; Joe, who often played with images found from his favorite movies in Photoshop; and Eva, whose favorite movie stars and anime characters were remixed in her digital illustrations. These forms of popular visual culture seemed to serve as a rich site of inspiration to these students as well as a model for their art-making across media.

It was also evident after working with these teenagers that an immensely popular form of digital visual culture being consumed by the group was that of their personal social networks. While a few of the students confessed to having a personal Facebook profile, most of the group members claimed that they rarely used it. No students reported using Twitter seriously. Instead, a popular platform for social networking in this group was the short-form blogging website Tumblr, which over half of the participants said was their social network of choice. The popularity of Tumblr is unsurprising, as these teens were particularly visually oriented. As a form of communication, it relies largely on the use of images as blogging content. For this reason, Tumblr feeds are filled with both original and reblogged images from other sources. Users may also post text entries to Tumblr, although the site is generally used to collate visual

content. Finding relevant information on a Tumblr blog often involved participants scrolling through a feed until something caught their eye.

Participants in the DigArts workshop were engaged with a variety of different online art-making activities, but the most evident site of this sort of behavior was deviantArt. This website, like many of other online visual cultural served dual functions as both a place to consume and produce digital imagery. This was evident in the case of Eva, who used deviantArt to browse through artwork created by others for inspiration and modeling purposes (which were then often reblogged to her Tumblr), and also used it to create and display her own artwork. One of the major appeals of deviantArt to group members like Eva was its' built-in illustration interface, which users could employ to simulate traditional drawing and painting techniques online. I surmise that this was a popular feature for Eva and other group members because it provided a free but powerful and intuitive tool for digital production. Although more "professional" software like Photoshop was provided in our lab, most participants did not have the resources to afford something that high-end for their own use at home. Instead, I found that group members often found clever ways to work around these limitations or hunt down free alternatives to conduct their own art-making. This was also true with Heather's collage work on Polyvore, David's experiences with *Roblox,* and many other instances during the course of the workshop.

It should be noted that the participants in this group in fact displayed varying levels of engagement with creating their own digital artwork. As I mentioned, a sizeable section of the group members were novices when it came to many of the topics we covered in the workshop, and they came to this third space with goals of learning more from other group members who had more experience. However, even in these cases, it was clear that some amount of digital art

making happened in the case of mobile and tablet apps[25], and other simple gateways to creative production. These types of online visual culture were often seen by the group members as less serious modes of production, and sometimes as "time-wasters", but demonstrated that even the most novice group member was engaged in some type of digital image production on their own (such as Jon and Henry's experiences tinkering with iPad sketching apps). This level of interest in making visual culture is unsurprising when considering visually oriented teens that signed up for this workshop. What is surprising, however, is the extent that visual culture production appears to be a central element to apps and games that participants found fun and engaging. Sites of visual culture that were popular among members of this group appeared to be those that made visual production and creation a simple and non-intensive activity, and where an artistic gesture could be achieved in a matter of seconds. The acts of snapping a photo and posting it to Instagram or Tumblr, communicating with Emoji[26], or tinkering with collage on Polyvore seem to suggest that these participants were often able to pull a phone out of their pocket and produce visual artifacts at a moment's notice, even in idle moments between their more intensive projects.

It was impossible to capture every piece of visual culture these participants were consuming in the workshop, although I was able to identify certain types of visual culture that appeared to be most popular among the group. The types of visual culture encountered by these participants online were varied, but they suggested that students' online worlds were filled with visually rich landscapes. Through the examples of video games, visual blogs like Tumblr and deviantArt, and viral videos shared between group participants over the course of the workshop,

[25] Some participants also enjoyed playing phone- and tablet-based games like *Draw Something*, which essentially follows the rules of *Pictionary* but allows friends to play against each other at a distance.
[26] Image based icons used in text messages.

it confirmed both my initial assumptions and the literature I encountered that the online environments inhabited by these group members were incredibly visual in nature, and often displayed subversive and fantastical themes.

6.2.3: Third space learning behaviors. Through my investigation I have also been able to enhance my understandings of the types of learning behaviors that comprise the third space, especially in terms of the literature (Staikidis, 2006; Wilson, 2003; Wilson, 2008a; Wilson, 2008b). Because the third space is situated somewhere between formal and informal realms of learning and art-making, it seems self-evident that students would bring elements of each of these worlds into the lab as we learned together. Through the events that I observed, I was able to find countless moments of intellectual significance, where seemingly simple and mundane events were actually suggestive of deeper learning that was not immediately evident. These were elements that seemed to have much in line with students' informal learning behaviors, but also represented a contrast to how they typically learned in schools.

For the most part, participants' school art production had clear directions and end goals in mind. As a result, pedagogy in formal spaces tended to avoid complicated subject matter and learning styles. Overall, these were students who were highly engaged with art at school and happy with what they were learning in these formal environments. These were motivated students, and they were also the kind who would most likely seek out other art making opportunities like our workshop to explore other interests that were not covered by formal curricula. Both contexts of formal schooling and the deformalized third space of our workshop offered the participants different positive benefits to their art learning. In the context of the school, adding boundaries and structure to learning became necessary measures in order to provide concrete artifacts of student learning for parents, administrators, and the community.

This kind of structure also provided stability for these students' learning, and supplied students with a clearly outlined trajectory and artist expertise in the form of their classroom teacher. In short, participants' school art classes required direction because teachers needed to demonstrate where the learning is headed. In the context of our third space workshop, we had much less accountability for what was happening day to day, and therefore we had the freedom to engage in processes that did not follow neat pathways to production or had end products in mind. The DigArts workshop offered these students the chance to work without a prescribed direction, but still in a social setting similar to a classroom. The resulting mash-up of learning styles resulted in a unique learning space. I believe that this opportunity was valuable to participants due to the risks it allowed them to take in their art, as well as for the chance it gave them to try new things without consequence.

I have also argued that the learning behaviors exhibited by teenagers in the third space have much in common with the rhizomatic models used to describe other social processes (Deleuze & Guattari, 1980; Wilson, 2003). For one, learning in the third space was heterogeneous and interconnected, and it connected the disparate interests and ideas of students on a daily basis. Learners in this space appeared to traverse learning nomadically and at their own pace, following their interests wherever it was commanded at the moment. Learning in the third space also adhered to the rhizomatic principle of multiplicity, providing multiple lines of inquiry for learners to follow these pathways, and as a result no student's experience of the workshop was exactly the same even when they were engaged in the same daily prompt or activity. Futhermore, learning in the third space appeared to demonstrate a number of asignifying ruptures, which were evident when moments of learning were disrupted or abandoned and new lines of inquiry formed in their place.

Each of these instances demonstrated to me that the third space is dependent on elements from both contexts of formal and informal learning, even though these realms differ greatly in the subject matter drawn from as well as in their pedagogical approaches. I also believe that both of these contexts for learning carry specific benefits and drawbacks for the third space. While the structured environment of the school provided accountability, predictability, and concrete artifacts to demonstrate learning, students' informal at-home art making typically existed in opposition to each of these things. In our case, the third space inherently provided a way to explore the territory between these two realms, and participants could decide on their own what degree of formality was desired.

6.2.4: Challenges to art educational models. The findings of this study have also allowed me to make a number of challenges to existing models of classifying and ordering the world of art education. Because the third space is inherently disorganized and un-structured in nature, its' behaviors are best described through a rhizomatic model. I demonstrated problems with other types of classification by discussing how the DigArts workshop occupied many spaces at once on the spectrum between formal and informal learning, depending on the needs and desires of each respective student. This was also evident when examining Haanstra's (2010) taxonomy of student-produced art. Through the evidence I gathered in the workshop, I have been able to argue that this model falls short of acknowledging just how much overlap there is between genres of art-making in teenagers' self-produced online visual culture. In the case of Eva's deviantArt gallery, I have demonstrated that boundaries between traditional art, popular culture, and biographical narrative art are much more difficult to define. Despite these challenges, I was able to confirm that concepts of "hanging out", "geeking out", and "messing around" online seem to translate well into the physical third space that we inhabited (Ito, 2010). I

also was able to verify much of Manifold's (2011) model for self-efficacy, but I call into question the terminal stage that she presents. Whereas Manifold refers to self-efficacy as requiring the study of art at a higher level institution and the goal of attaining a career in art-related fields, I argue that self-efficacy for online learners might take a very different shape. The online realm is a space that is occupied by experts to learn from, communities of art-makers to participate in, and complicated issues to discuss. For some online learners, self-efficacy might mean a meaningful life-long engagement with art-making or visual culture, whether that engagement is financially supportive or not.

In each of these cases, observing and interacting with learners in the third space has led me to positions that in some ways complicate art educational classifications, and in other cases support them. In many of these cases, examining the third space provided me with an enhanced understanding that learning is a fluid social activity that often resists easy categorization. While certain measures and taxonomies might be helpful in understanding the emergence of patterns of learning and social behavior, it is the anomalies and exceptions to these models that offer rich sites of conflict and tension to investigate more fully.

6.3: Suggestions

Based upon these findings, I am able to offer a number of suggestions that I believe would be beneficial to art educators who work in third space environments. These suggestions will address the specific role of the facilitator in the third space, the freedom the third space provides in terms of content, curriuculum, and pedagogy, and the opportunity to explore the rhizomatic nature of learning in the third space.

First, I feel it is important to caution educators against the idea that it is possible to engineer a third space into existence. As I have argued, the third space is rhizomatic in nature,

and may arise when least expected in the fleeting moments in between structured lessons. It is also characterized by a balance of structure and anti-structure, and may not even need to take place in physical dimensions. In my own efforts to engineer a third space in the DigArts workshop, I was able to provide a space for students to gather around a shared idea and work together to learn more about the topic of digital arts. However, I was ill-prepared to anticipate that the third space would not arise simply because I, the teacher, wanted it to. Instead, it depended on both sides of the system to contribute and desire for it to occur. In my case, the third space truly turned out to be more about what we could provide for each other. For some students, I provided expert guidance through new processes, for others I was a connoisseur of taste, and for others I was simply a sounding board and witness to their ways of working. At the same time, I learned much about these students through the artifacts of digital media that they brought into the lab to share with me. For many students, this kind of relationship took time to develop naturally. In our case, the third space was a transaction of culture. Our third space was a unique and organically unfolding relationship forged between myself and each of the participants over the course of the workshop, not an engineered situation that can be duplicated by prescription.

The role of the "educator" is one that is very different between formal and informal learning spaces. In formal settings, this is often taken to mean the teacher and the leader of the class. In informal learning, the teacher is often the same person as the learner. As a result I attempted to respond to each of these realms accordingly in the third space of the workshop. In participants' formal schooling, the teacher appeared to remain very much at the head of the classroom. Through my discussions with Ms. Blaser, the school teacher of many of the workshop participants, I came to the understanding that her role in many of her art courses was to provide

guidance to her students' learning. Ms. Blaser guided her students' learning through established curricula, and she was responsible for assessing the depth of student learning in quantifiable terms. In her classroom, her students likely interacted with her typically as expected with a teacher, and they expressed their respect of her opinion and choice of projects in our conversations. I attempted to challenge the role of teacher in my own facilitation of the DigArts workshop, by leaving it open to interpretation by each student. In this way, I believe that in our third space, participants were able to interpret my role in the group as they saw fit. If I needed to be an expert, a sounding board, or simply another art-maker in the group, I could fit any of those roles. I anticipate that many classroom teachers like Ms. Blaser strive for this kind of relationship with their students as well, although the demands of a rigid school system and accountability might make this difficult. The freedom and flexibility of our third space provided an ideal opportunity to forge this kind of relationship, and I was most effective as a third space educator when I exercised this flexibility.

I also suggest that art educators further embrace the unique learning situations and practices offered by contemporary digital visual culture sites, whether it be gaming, mobile apps, or image-based social networks. This was especially evident in the case of video gaming, which group participants told me were rarely, if ever, addressed in their school art classes. Even though the subject of gaming is still popular among teens and the academic study of gaming has gained greater acceptance, it appears from my interactions with group members that even the most art-supportive schools have yet to find ways to incorporate gaming into their curricula. Through talking with the participants, I gathered that the types art classes offered in their schools have not evolved in some time and are often still focused on standard drawing, design, and art survey courses. Some of these schools have begun to provide more classes about digital arts subjects

like animation and 3D graphics along with the more traditional courses, but the concentration of these classes remain heavily focused on the production side of art learning. It is evident, however, that schools have seemed hesitant to make room for hands-on video gaming in their classrooms as a learning tool. Perhaps this is because video gaming as an activity offers no tangible product to show as evidence of learning, and therefore it is difficult to justify as an appropriate allocation of valuable resources in schools. In the world of formal education, a high score only seems to matter if it is on a standardized test. Although our workshop was limited in its access to gaming technology, I was able to witness incredibly productive things happening in the virtual worlds inhabited by the DigArts participants, as some created their own landscapes in *Minecraft* and others aspired to design character skins in *League of Legends*. By allowing room for video gaming to take place in the workshop, I believe it became possible to witness how simply providing a place for gaming in a third space setting might offer new possibilities for encouraging social and productive learning through video gaming.

6.4: Recommendations for Further Study

Although this study has addressed the research questions provided, new problems and questions were always emerging during the course of my research. The events of the workshop also led me to consider further pathways for study that could supplement the understandings of this study and take its' findings in new directions that would be of great value to the field of Art Education.

It should be noted that this study ran with certain limitations, particularly in the timeframe for data collection. This was due in part to IRB restrictions on my proposed timeline. However, it was perhaps also due to the tenuous nature of third space relationships. Much like the way these connections arose unexpectedly seemingly out of nowhere, they also dissipated to

some degree when our weekly contact was broken. I would have preferred the opportunity to stay more in touch with these young people, and in fact, a few unpredicted run-ins have occurred since our time together. I can assert that those students are doing well. However, because no follow-up interviews with participants after the 9-week course of the workshop were conducted on the record, the claims made here about the types and styles of learning of these teenagers (that third space learning tensions can be productive toward learning and that learning in the third space may take a rhizomatic structure) are limited and based solely on my personal observations and interactions with participants during that time. These are speculations, which I attempted to confirm during our time together, but have not been member-checked since the workshop's conclusion. A more in-depth study of this situation would require an extended interview period after the conclusion of the group's meetings in order to collect more adequate data, and to gain new insights on how students would personally explain what they learned in the third space and how it applies to their future trajectories in art and media-making.

One major issue that arose during this study that begs further investigation is that of the role of the amateur producer in today's online media economies. I was able to find evidence that amateurs are finding it much easier to not only pursue creative endeavors but also find an audience. However, I believe much remains to be understood about the role visual culture engagment plays in the day-to-day lives of amateur podcasters, vloggers, animators and other online creatives. A great deal could be learned from a finer-grained investigation and case study of these types visual culture producers in particular, especially in terms of how they perceive their place as non-professional members of a user driven media economy.

Because the scope of this study was fairly broad and intended to provide a survey of a great deal of online activities and visual culture experiences of teenagers, a deeper investigation

of any one of the sites mentioned in this study would likely be of great benefit. Today's social media platforms used by teenagers appear to be increasingly image-oriented, as evidenced by Tumblr, Snapchat, Instagram, and deviantArt. A more fine-grained investigation of these platforms as tools that allow users to communicate and share through primarily visual languages might offer art educators a better understanding of how contemporary visual culture contributes to new models of online visual literacy.

I also anticipate that some art educators may currently be investigating games like *Minecraft*, and I believe that a more nuanced understanding of open-ended sandbox games like this is still needed. The nature of games like these seems to have shifted from an emphasis on combat to one on creativity, from competition to cooperation, and from closed and delineated tasks to more open-ended exploration. These qualities seem to have much in common with the goals (though not the common practice) of art education in general, and a deeper investigation of this game and other like it might provide further insights on the subject of gaming and the third space.

6.5: Conclusion

My experiences in the third space were chaotic, messy, tangled, and sometimes troubling. In other words, it was everything I could have wished for and it offered me a great deal to learn from. Despite the tensions that emerged when our worlds collided, our third space of the DigArts workshop allowed us all to observe and experience new ways of living in the art world and beyond. My experience in this space was an overwhelmingly positive one. Being able to share a learning space with such highly-motivated and creative teens reminded me of why I was drawn to art-making and the online world myself as a teenager. I remember well sketching scenes from my favorite television shows or movies in my notebooks, spending hours playing a video game,

and the self-guided joys of tinkering with my pirated copy of Photoshop until I learned something new and useful. I wish I had had a group of peers like these teenagers when I was their age and learning about digital media on my own. It was clear that we were of different generations and had completely different frames of reference on many popular culture sites that came up in the workshop. The online world moves a lot faster now than it did then – group members could never understand the pain of waiting to download something over a 14.4 dialup modem. However, though sharing our perspectives on digital art, visual culture, and online learning, our generation gap was able to bridge at least momentarily every Saturday. During this time, we were all convening over a desire to make, to learn, and to share.

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Appendix

Session 1 Interview Transcripts - January 25, 2014

Time: 1305
Subject: Initial interests - video games

David: I finally got *Minecraft* on my PC.

Jessica: I had it on my old laptop, but I really don't want it back after I started playing *Diablo* again.

Brad: Who here are Minecrafters? I've never played, I really want to learn. Maybe we can do that this semester, you can teach me *Minecraft*. I would really like that.

Group: [laugh]

Jessica: I mean, I'm more of a creative mode person, because I'm not into doing the missions. But I do survival mode too.

Carson: Personally, I would recommend you playing *Guild Wars*.

Brad: Guild Wars? I don't know much about that.

Carson: It's like an RPG. It's pretty fun.

David: That's a good one!

Time: 1435
Subject: Introductions

Brad: So, I guess let's start by saying our age or year in school and… something interesting about yourself? Yeah, that sounds good. Well, I'm Brad, I'm old and a Ph.D. student in Art Education, and I've never eaten cottage cheese. [laugh from group] Ok, you're with me then I guess. That stuff just looks gross.

Carson: Have you tried sardines though?

Brad: Sardines? That's pretty gross too. I can't eat an entire animal whole like that. Let's start over here with Hector, OK?

Hector: Ok. I'm Hector, and I'm from Barcelona. And… I like movies. I guess that's why I also like design and things.

Brad: That's great! What's your favorite movie? I'm going to keep you on the hotseat.

Hector: Well, I saw *The Hobbit 2* the other day, it was really good.

Brad: I haven't seen it yet, but I may have to. Ok, Jon?

Jon: I'm Jon. I've lived here like 2 years now, but before that I lived in Wisconsin, and uh… I like to play around with my camera and do slow-mo stuff on my computer with it.

Brad: Sounds cool! Alright, Henry.

Henry: Ok, um, I'm Henry. I've lived here all my life. I haven't really done much with computers, but I like art a lot.

Brad: Well, that's cool. Hopefully we'll be able to find something for you here! Let's go all the way back to this row.

Kristin: I'm Kristin, and I like art because I've always been around it, and my mom is really into art too… so I really like painting and stuff. And I'm from Mahomet. I lived there when I was little, and I moved away, and then I came back.

Brad: Great, well welcome back! Did you move far away when you left?

Kristin: Nope, do you know where Danville is? I moved over there.

Brad: Ok, cool! Next.

Charlie: Ok, I'm Charlie… I guess I'm not really that interesting. I'm just really kind of excited for this, because I kind of want to go into, like, video game design and stuff.

Brad: Thanks Charlie, sounds awesome!

Carson: I am Carson, and I believe he's being semi-accurate, because I know him and I find him quite interesting. Yeah, I started off art when I was like five drawing skeletons for some reason, I guess because it was Halloween, and then, um, built up to, like, zombies and stuff like that, necromancers, and I did this.

Brad: That looks great, what's your workflow, like what software do you use?

Carson: Uh, Sketchbook and ArtRage.

Brad: Cool, I actually don't know either of those programs, so you'll have to tell me more.

Carson: Oh, I just got addicted to *Fallout: New Vegas*, so there you go…

Brad: I have no idea what that is.

Jessica and Carson: A video game!

Brad: I figured, is it a violent one? It seems like you have an affinity for the darker side of things, with your zombies and necromancers.

Carson: [laugh] I guess you could say that.

Brad: Ok, David, tell us something about your self.

David: Uh... I love *Minecraft*. I love building stuff out of it and I love building stuff out of Legos as well. I'm a huge fan of all types of cars, and I'm a huge fantasy fan, I love *Lord of the Rings*. I'm also very interested in architecture as well.

Brad: I'll see if I can think of something architecture related I can bring in! Have you ever used SketchUp?

David: Oh yeah, I have that on my PC.

Jessica: Ok, well, my name is Jessica and I'm from Mahomet as well. I have a small obsession… well its not very small. I'm a pretty big video gamer and I sketch a lot and there's this game

called *League of Legends*, and I design skins for it and two of mine have made it on the video game.

Carson: Do you have a Steam account?

Jessica: I used to, but I don't play much on there anymore, but yeah, that's what I do a lot.

Brad: Wow! That's really impressive. You'll have to show me some of your skins sometime. Ok, who's next?

Allison: I'm Allison, I go to Mahomet and I'm a painter, that's what I'm really interested in doing. This year I helped with designing my yearbook, so I did all the layouts for that. So I'm looking to know more about, like, web design and just other areas of digital design.

Brad: Cool, thanks Allison! I love painting too. I started as a painter myself in college, but then got really into video, so video is what I do mostly now. Alright, and way back in the back?

Eva: I'm Eva, I'm from Monticello and I've been drawing ever since I could pick up a crayon. Recently I've been designing logos for people and have been paid pretty well for some. I recently made another one for this thing my dad is doing [scrolling through a number of graphics on her computer screen]. But I've also just done one for a friend and a DJ business that my dad knows and some others. (personal communication, January 25, 2014)

Time: 1435
Subject: Digital art in schools

Charlie: I've done a lot of animation stuff, because, like, I'm in 3-D animation right now.

Brad: Oh really? You are? Where do you take that?

Charlie: It's just like one of the classes you can take at our school.

Kristin: Mahomet has a lot of really good classes you can take.

Charlie: I took web design last year so I did a lot with Flash, some with Fireworks. 3-D animation we used Viz. We also did some claymation commercials in another class, so I did some stop motion.

Brad: That's really cool, I'd love to see some of that stuff. I haven't really gotten a chance to do much 3-D animation, but I've played around with Blender a bit.

Charlie: Yeah, I've never used that, but I've talked to people and say we use Viz, and they're like, "why don't you use Blender because it's so much better?" So I kind of want to play with that sometime.

Brad: I looked and unfortunately I didn't think it was installed on here. I'm not sure if they gave us anything good for 3-D modeling or animation.

Charlie: I saw SketchUp. But that's kind of like the only thing that's installed for 3-D. And it's really simple and you don't have a lot of freedom in that. SketchUp, there's no animation or anything, it's just like architecture design. I saw they don't have Flash either.

Brad: I know, I realized that too recently. Hopefully I can pull some strings and get that on here, or at least figure out a way to do something fun with the resources we do have.

Kristin: I haven't been in any classes like this yet, because you have to be a Junior or Senior, and not until the end of last year did I start getting interested, and I'm a Sophomore right now. Now I'm starting to get actually more interested in art to where I might want to do something with it in my life. But I figured if I want to do something with art when I get older, I might as well learn everything I can about it.

Eva: By the way, you guys were talking about 3-D animation? My dad really wanted me to get into that, so he got me this really new thing, 3Ds Max or something? I've gone through the

manual and tried playing it, but he also got me a 3-D mouse, and that's the hardest thing to master.

Brad: I've never used one of those, how does that even work? I don't even know!

Eva: Well literally, it's round and its heavy because it's got sand in it and you have to hold it like this [claw gesture]. And to just zoom in, you push forward with the mouse or pull back. And it's really difficult to use because it barely moves and like any small step and next thing you know I can't find the platform anymore and all my work is gone. It's super frustrating.

Brad: I think your dad mentioned that in his email that he had gotten that for you and was hoping you'd learn a bit more about it.

Kristin: Is your dad really into art too?

Eva: No, he's definitely a computer geek though. He's really into Photoshop. Like, he's taken pictures and altered it in Photoshop to make it look really cool and everything. Like, he took a picture of a whole sunflower field and made one sunflower one color and the rest another. I remember seeing him work on it.

Brad: I could definitely show you how to do that. I think today was kind of an ambitious project to start out with. I think next week we'll do something a little more simple and lot more open-ended.

Eva: Well, animation has really always been my thing. Like, those GIFs, those are one thing I've already done and it's really fun.

Time: 1505
Subject: David's racing games

Brad: So I don't know if you saw on the website I have a survey set up, so make sure you put in some feedback if there's something you want to do.

David: So I have, um, *Grid*, have you ever heard of that?

Brad: No I haven't!

David: It's um… I did a two-hour race in that game.

Brad: Really? So they do like real time races?

David: Yeah, they have one at Le Mans, and first I did the twelve minute one, then the twenty-four minute one. Then I did the one-hour and two-hour one.

Brad: Sounds like fun, I don't know if I could sit that long.

David: I don't mind!

Session 2 Interview Transcripts – February 1, 2014

Time: 1300
Subject: Carson's cartoons

Carson: Yeah, kinda. [laugh]

Brad: What in the world is this?

Carson: I have no idea! It looks like some kind of fantasy cartoon thing I found…

Brad: It looks like *Adventure Time.*

Jessica: Like an *Adventure Time* parody.

Charlie: I just found the first couple seasons, I've been watching that a lot.

Brad: I've never actually watched that show much, but I have a couple times and was blown away by how weird it was.

Eva: Yeah, once you get into it, it's less weird and easier to follow the storylines. But the animation is really cool.

Charlie: *Uncle Grandpa*, that's a weird show.

Brad: "Uncle Grandpa"?

Eva: Oh, you know what's really weird is the *The Annoying Orange* show. I just can't get into that one, but my friends do. (personal communication, February 1, 2014)

Time: 1345
Subject: Hector and Dali

Brad: This might be difficult a difficult one to start with, because you see the edge of the building is cropped off. So when it's wrapped around on itself it will have this hard edge where the rest of the building is missing. But you might play around with copy and pasting, using the clone stamp tool, and stuff like that to see if it will work. Is this in Barcelona?

Hector: No, no, no. That is a small village north of Barcelona. I also have a picture of Barcelona, but not here, not right now with me.

Brad: Ok, well see what you can do with the time we have left. I'll bet you can pull it off. I'd love to visit that part of the world some day, one of my favorite artists is from near Barcelona.

Hector: Dali?

Brad: Yeah, Dali!

Hector: He was the uh, uncle of my grandma.

Brad: No kidding? Really?

Hector: Yeah.

Brad: No way, I want to see some documentation on that! You're playing a joke on me.

Hector: No, really. Well, like, my grandma's father, or mother, was cousin to Dali, so it's like… They knew him very well, it was almost like her brother.

Brad: Wow, that's amazing. You'll get instant extra credit in any art class you take I bet. (personal communication, February 1, 2014)

Time: 1405
Subject: Jessica's *League of Legends* skins

Jessica: Um, so you said you wanted to see some of the skins I made?

Brad: Yeah, that would be great!

Jessica: Well, I accidentally said that I published them, but they're not really up yet.

Brad: Oh well that's ok, maybe we can help that happen in here.

Jessica: So on *League* you can buy skins with RP, which is actually money, but whatever, but you can buy skins and put them on your champion to make them look a certain way and make it unique. My friend actually pitched this idea and he asked me to draw it for him, and pretty much he told me he wants it colored and drawn. So I've done two of the three views I have to have done for it…

Brad: Oh, so do you have to have like a front view, profile…

Jessica: Well, this would be like the splash art, which would be the initial image people see of it. And then this would be more of an in-game view. (Pulling up the game window on her computer) So like, this right here would be the loading screen and that's where you'd see the splash art. And this person right here, she's wearing a skin so her appearance has changed…

Brad: So it starts with a basic character type, and the skin modifies it or something?

Jessica: Yeah, pretty much. Usually Riot [the game's producer] makes the skins, but they take submissions.

Time: 1420
Subject: *Scribblenauts*

Carson: Are you a fan of *Scribblenauts*?

Brad: I don't know anything about it, what is it?

Jessica: That's a fun game!

Carson: You get to write whatever you want and spawn whatever you want.

Jessica: So like if you need a baby, you just type in baby and it appears. There's a library of items they have, and they added a bunch of modifiers too, so you could make it a fat baby, or whatever.

Brad: How do you win?

Jessica: You just solve puzzles. There's not a larger story line or anything like that.

Brad: Oh okay, I think I understand.

Carson: *Scribblenauts Unmasked* is better, you can spawn any DC [Comics] character.

Time: 1435
Subject: Eva's *Emo Moose*

Eva: This is one thing I'm working on, this is a program that I use, it's Manga Studio 5. I kind of wanted to do an anatomy practice. You can't see all of it but, let me scroll down here…

Brad: So this is an in-progress on your Tumblr? What are these other items that you posted?

Eva: Yeah, so those are just some other anatomy studies I found, some my friend did that I reblogged. She also draws. But, uh, I asked someone for an animal to draw, and someone said "emo moose!" so that was the first one.

Brad: Oh so you had to draw some kind of moose-man and figure out how to meld their anatomies?

Eva: Yeah, it's kind of a tough one, but this is how it's turning out.

Brad: It has a really great inky look to it, almost like it was hand-made.

Eva: Yeah, there are some different brushes in the program that give you that effect. I usually start with like a red sketch and add more and more layers.

Brad: So where is this going to end up when you're done?

Eva: Oh, probably on deviantArt and back on Tumblr too.

Session 3 Interview Transcripts – February 8, 2014

Time: 1300
Subject: Carson's video gaming

Carson: Well at least I can say I know a little bit about Photoshop now, even if it's on a Mac.

Brad: Well, I've got bad news for you, we're using Illustrator today. Do you have a Mac at home or PC?

Carson: Just PC. Check that out.

Brad: What is that?

Carson: That's on my Steam profile.

Brad: Oh cool, a zombie cat. Or maybe just a demented one?

Carson: [laugh] Yeah…

Brad: So Steam, I haven't really used it much, but I understand it's a way to get games online?

Carson: Yeah, I would recommend it if you want to play lots of different ones. It's better than going to the store.

Brad: Oh, how much is a subscription typically?

Carson: You don't need a subscription or anything. You can pay per game really if you want, but you have to verify your credit card.

Brad: What's your favorite game currently?

Carson: Personally, I like *Warframe* and *Loadout!* at the moment. *Loadout!* is newer, I guess. It's sort of like *Team Fortress 2*, only it has pretty much every typical taunt in it, so you can do like a "Gangnam Style" taunt. And, uh, it can be pretty gory. You can literally blow your own head off and you'd still be functioning and walking.

Brad: So not a real-world experience then?

Carson: Yeah the jumping's not realistic, because you can get to like leap over a boulder if you want.

Brad: Oh, that's the unrealistic part?

Carson: [laugh] Well, it's pretty comical, yeah. But *Warframe* is more realistic, it's more of a future look to it. It's like co-ops, where you're playing like as a sacred alien race and you're fighting over the future wasteland of Earth and all the systems we have. Humans don't exist anymore, by the way.

Brad: That sounds definitely more my speed. Very cool, I'll look it up. (personal communication, February 8, 2014).

Time: 1425
Subject: Carson exhibits artwork

Carson: Look at that…

Brad: This is digital drawing? What program did you use?

Carson: Pretty much Sketchbook and ArtRage. I also did some animation (Figure 4).

Brad: Wow, that's awesome!

David: Is that your voice?

Carson: Yeah.

Brad: How long did that take?

Carson: I'm not really sure, I did a lot of it over the summer. I didn't have time to do much to it, but…

Brad: I liked the way it looked as is, definitely a lot of work to do something like that from scratch!

Session 4 Interview Transcripts – February 15, 2014

Time: 1255
Subject: Carson and home school art

Brad: So, you told me that you're home-schooled, right?

Carson: Yeah.

Brad: What is that like? I've always wondered.

Carson: It's alright.

Brad: Just alright? Must be nice not having to get out of your pajamas.

Carson: [laugh] Well, I do anyway.

Brad: Do you have set hours that you do school work?

Carson: Yeah, pretty much mornings, sometimes afternoons if I have a lot to do.

Brad: Who teaches you, your mom?

Carson: Kind of. A lot of it comes from books… I can't remember the name of the company.

"American" something…

Brad: Are there art books that you use?

Carson: Yeah, it's pretty basic stuff.

Brad: Do they assign projects? Or is it art history?

Carson: A little of both. Nothing digital though.

Brad: You've shown me a lot of digital stuff you've done though. How did you learn about that?

Carson: A lot of practice, I guess.

Brad: Where do you go online if you're trying to figure something out and need help?

Carson: YouTube sometimes has good tutorials. But mostly I just try to figure it out.

Time: 1305
Subject: David explains *Roblox*

David: Where is everybody?

Brad: I think they're just moving slow. It's a Saturday afternoon, that tends to happen.

David: Yeah, that's true. I just signed on to *Roblox,* have you ever heard of that?

Brad: No, what is it? Was someone mentioning this the other day?

David: It's kind of like *Minecraft.*

Brad: So what do you do? Do you just kind of wander around, or do you build things too?

David: Yeah, you can do pretty much anything. There's different games you enter. This one you can build your own car, and then there's different races.

Brad: Do you have a favorite game on here?

David: Well, I was on this one, "New Blocker City", which is like a remake of New York City. Here's the World Trade Center. See, here is what the cars look like in *Roblox*.

Brad: Oh, so they're really blocky and low-fi. That does look a lot like *Minecraft.*

David: Yeah, but you don't have to pay to play it.

Time: 1330
Subject: David demonstrates how to play *Roblox*

David: We're gonna do "New Blockers City". I can join, and then you can come and find me once I'm in. What you'll do is go to the tube and choose what you want to be in the city, either a subway driver, or police officer, or other stuff.

Brad: OK, I guess I've got to install the applet just like you did. One sec.

David: You can join whenever you want, there's no like lobby that you have to enter first. Doesn't the graphics and stuff look a lot like *Minecraft*? Only it has machinery that moves, *Minecraft* doesn't have that yet.

Brad: I think I see you! Are one of you guys in the police station?

David: Huh? Yeah, you've got the same outfit as I do, see that?

Brad: Yes, I think so.

David: Did you just do a backflip?

Brad: Yeah.

David: How?

Brad: [laugh] I don't know… I just pressed "city tools" and the "backflip" button came up. Oh no, I died.

David: It will reset you.

Time: 1345
Subject: Heather discusses Polyvore

Heather: Sure. Have you ever seen Polyvore?

Brad: No, I haven't. What is it?

Heather: It's a website that was made for fashion. If you go to it, it looks like just clothes. It used to have an art section, but it's harder to find now. But it's also a collage site. It has this feature where you can mix and match different things on the screen to build a collage.

Brad: Oh wow, that is really neat.

Heather: And so if you go to it, these are all the things that it clips out for you, and you can just add them together. But then it also it tells you where they got it.

Brad: Oh, so it cites the source of the image too? That looks really fun. Do you use it a lot?

Heather: Oh yeah, all the time.

Brad: That is great, I'm going to definitely tell people about this. I wish I'd known, we could have used this today instead of Photoshop for a change of pace!

Time: 1410
Subject: Jessica explains *League of Legends* gameplay

Jessica: My whole thing with *League* is I'm not a very… I'm not one of those players that gets to play "mid" or "ADC" and gets to carry the whole game.

Brad: What does that mean, "mid" or "ADC"?

Jessica: "Mid" is like you play an "APC", which is an ability powers champion, and then "ADC" is an attack-damage-carry. So technically, if they get multiple kills, even if the other team doing better than yours, they should be able to carry the entire game. But I play support, so I pretty much baby-sit the ADC.

Brad: So the ADC is in charge of attacks?

Jessica: Well, they usually don't initiate them, they just stay in the back. You usually have a tank for that. There's five people on a team.

Brad: So you need a whole guild of people to defeat everyone you need to beat in the game?

Jessica: Um, not really, there's a few champions that you can completely dominate by yourself or with a smaller team. Like this guy is the most irritating because if you queue farm with him, which is one of his abilities, it gets more damage, so it continually scales even if you're level 18, which is the highest level, but oh my gosh. I've seen him carry a feeding bot lane, a feeding mid lane, and a feeding jungler, just because he got fed, because the top lane on other team's left lane and let him free farm and he just got stacks!

Brad: You might as well be speaking Greek to me, because I didn't catch a single word of that. I'm really glad I'm recording. But it sounds like you know what you're talking about. How often do you play this game throughout the week?

Jessica: Well, I don't really play at all during the week because I focus on studying, but during the weekend I play at least 12 hours.

Brad: Twelve hours like for the whole weekend? That's not bad, six hours a day?

Jessica: Well um. [laugh] It's probably longer than that.

Brad: Now that I do the math, that is a lot of time. [laugh] (personal communication, February 15, 2014)

Session 5 Interview Transcripts – February 22, 2014

Time: 1255
Subject: Eva discusses her entry in an art competition

Eva: Hey Brad, are you aware of the Film Fear Festival that's going on tonight?

Brad: No!

Eva: It's like the 31st annual, at a building here.

Brad: Oh, actually I have heard of this! It's all stuff about bugs and insects, right?

Eva: Yeah, it's really cool, it's my fourth year doing it, and I've won three years.

Brad: Oh really? What do you do in it?

Eva: Well, you enter art.

Brad: Can you show me something you're entering?

Eva: Well you can only enter one thing, but I got a picture of it. But the theme this year is pesticides. So there's a new pesticide they came up with that is killing monarch butterflies. And so, that's what I drew, it's like 11x14 inches, and it's disintegrating butterflies.

Brad: That's amazing!

Eva: And it took forever, but it was worth it.

Kristin: What did you do it in?

Eva: I did it in Prismacolor markers and colored pencils.

Brad: Where do they hold the event at?

Eva: Uh, I'm not really sure, I have to find out.

Brad: Well I definitely think I heard about that, I didn't realize they show art too. I know they're showing movies, right?

Eva: Yeah. It's around here somewhere, I think Foellinger? But it's cool because the display the art and the winners, and they all have insects there that you can hold and they have like giant grasshoppers.

Brad: Oh man, that's not for me…

Eva: Well, it's for me, I'm excited!

Time: 1320
Subject: Samuel explains *Bioshock*

Brad: So what are you working on here, Samuel?

Samuel: I'm think I'm going to do a character from *Bioshoc*k.

Brad: *Bioshock*? I've heard of that, but again, never played it. What is the premise of that one?

Samuel: Um, so it's this underwater city called Rapture, its kind of like Atlantis. And there's these guys in big suits called "Big Daddies", and you're a Big Daddy and you're supposed to save these little girls because they're like… there's this drug called "Adam" in it, and the city is falling apart. So there's like these crazy people that are overtaken by the drug trying to take these little girls…

Brad: Is it violent? Is there a lot of fighting and stuff?

Samuel: Uh, it's a lot of fighting. There's like guns and stuff.

Time: 1345
Subject: David and I play *Roblox* together for the second time.

Brad: Ok, I see you now. [Your username is] "Spyro", right?

David: Yep. I think you can only use Formula 1 cars, see the lineup here? They do look really detailed. Do you see what it says on the back?

Brad: I saw it said something, but I didn't see what it said. Oh, it says "Stop!" [laugh]

David: And that purple button there is to reset it.

Brad: I was trying to figure out how to get in.

David: All you have to do is get in that little hole there, see there I go.

Brad: Oh no, it's resetting me.

David: You're floating?

Brad: I'm floating, why am I floating?

David: Did you see me take off?

Brad: I just did.

David: It's a replica of Circuit de la Sarthe in Le Mans, France. You gotta at least speed up to get on the road. See how it just pushed you back? You gotta speed up so you can get over the hump and onto the road.

Brad: Okay! I'm in, I'll pull into a spot next to you. Oh no, I fell completely out of the world and am plummeting into space. I guess you win.

Time: 1415
Subject: Allison discusses Google apps

Allison: Have you heard of, like, all the other Google apps there are?

Brad: I've seen a few that they've done, but I don't really know about all that are currently out there.

Allison: My French teacher told me about this one app last year where all these people around the world they, like, play all these different instruments. And it's kind of like a chat room, but they're all playing music together through the app.

Brad: You're kidding me. I had an idea to make an app like that a few years ago and it was going to make me rich!

Allison: Well, Google beat you to it.

Brad: I did this other Google sponsored thing though a few years back, the Johnny Cash Project? You know who Johnny Cash is?

Allison: Yeah.

Brad: It essentially was like an interactive music video thing. They gave you a frame by random, and you used their online Google painting software and I can show you right here, it shows you every brush stroke in time lapse when you're done. But anyway, you painted over an existing video frame in your own style. So I did a couple of these, and a couple months ago I saw one of mine was included in the Director's Cut of the video!

Electronic communication from Henry's mother

Hello Brad,

Sorry I didn't contact you last week--I figured Jon and Hector would tell you that Henry was sick. He had a virus, and then he developed pneumonia. He's feeling better now, but will be absent again today because Jon and Hector are out of town playing soccer, and he doesn't want to go without his friends. Miriam's birthday is today, so we have some family plans anyway. I could insist that he attend the class solo, but I want your art class to be something he looks forward to each Saturday. I hope this is ok with you.

I also wanted to mention some feedback I got from Henry, although he'd probably be really embarrassed if he knew I had passed this on to you. I asked if he's learning how to do lots of new things, and he said, yes, some, but he couldn't keep up with all the instructions you give in the first part of the class. He said you present so many different options and how to do them, that when it's time to try something, he can't remember how to do that one particular thing, and that he thought the kids around him were having similar difficulties. Part of this might be because our computer at home is so old, everything he's doing with you is completely new, so Henry has a steep learning curve. He's also gifted/LD--he's dyslexic and has some processing issues and attention deficits with some other mild learning disabilities. He's an "A" student, but he doesn't always follow verbal instructions easily with only one pass. Would it be possible for you to go over fewer options, with more repetitions on how to do the technical work? Or maybe you could just be more available for the hands-on portion of the class? I feel like there's so much that Henry could learn from you, and he was very excited to take the class; I don't want him to give up on learning more about the digital arts world! We appreciate your time, energy and expertise so very much.

Thanks again, and I hope he'll be back in class next Saturday,

Mary Kate

Session 6 Interview Transcripts – March 1, 2014

Time: 1305
Subject: Charlie discusses his collage and school art expectations

Charlie: So, Blas didn’t let me turn in the collage I did here for her class. The one of Ice Cube.

Brad: Blas?

Charlie: Yeah, Ms. Blaser, that’s what we call her.

Brad: [laugh] Does she know you call her this? And I'm not sure I blame her. She's in charge of, like, actually teaching you things and being held accountable for it. I'm able to let you do that sort of stuff I guess.

Charlie: She was like, "I appreciate that you worked outside of class" or "practiced outside of class, but you have to do something different."

Brad: She probably just thinks you can take the skills you're learning here and apply them to something more challenging, would be my guess.

Charlie: Well, I made a new one.

Brad: A new one? Same theme or something different? No Ice Cube, I'm guessing.

Charlie: Pretty different. I posted it on here.

Time: 1335
Subject: Allison discusses her color manipulation process

Brad: This is so cool. Is this one of your own photos?

Allison: Yeah, we have a really nice garden.

Brad: It looks really nice, what did you do with it to get that effect?

Allison: I just went to each flower and kind of toggled some of the different effects and filters. I posterized it, I saturated it, I changed the colors a little bit to make it look like fall leaves.

Brad: I love it, it looks really expressive, and not so much like a photo anymore. More like a watercolor or print of some kind.

Allison: Yeah, before it was just like green and some red… now it's, like, really crazy.

Brad: Have you done a lot of photo retouching before like this?

Allison: Yeah, I retouch photos all the time. Well, most of the retouching stuff that I've gotten good at was using the website Picnik.

Brad: Picnik?

Allison: I mean a lot of people used it for just putting words on their pictures or making it look crazy, but I used to edit photos a lot and they would end up looking really cool. I would end up doing this kind of stuff and I would, like, add a ton of filters.

Brad: Have you ever played with putting textures on top of an image?

Allison: What do you mean by textures?

Brad: Well, here, let me show you on one of my pictures. Like on this picture of Bill Murray, if I want it to look more weathered or vintage instead of clean and crisp, I can add this paper texture I found online to it. So all you really have to do is drag it into a new layer like this on top of your original image. So right now, it's blocking everything, but if I select that later and click the Mode menu up here and select darken, you can see how it kind of overlays the shadowy parts on the image and makes it look like it has a grungy paper texture now.

Allison: Oh wow, that is really cool. Where did you find that paper texture?

Brad: I found it online, I just searched for like "free paper textures" and downloaded one of the first ones I found that I liked. But there's tons and tons of places you can find stuff like that online. You can do it with cardboard and other things too. You could also scan your own paper you find if you want.

Time: 1405
Subject: Participants play *Minecraft* together

Brad: Oh, you guys are on *Minecraf*t! Not just *Roblox* today.

David: [laugh] I'm in kind of a peaceful survival mode right now.

Carson: Yeah, I'm building my own server.

Brad: You're building your own server? What does that mean?

Charlie: It's just so that you can open it [the environment] and occupy it together or apart.

Brad: So you guys are all going to link up and play today?

Charlie: You can either, like, play "direct connect" where it's like I can play when he's on, but once he gets off I have to get off. Or you can set up a server that's always up and running, and the world changes, and I can go in and make changes even when he's not online.

Time: 1415
Subject: Jon and Henry discuss their color correction work.

Brad: *Breaking Bad*? Your dad allows you to watch that show?

Jon: Well, it was kind of his idea. He was like, "I heard this show was really good, we should watch it." We're not finished yet, but it is pretty good.

Brad: I actually really like it too. The last episode is amazing, but I won't spoil it for you. What's that from Henry?

Henry: I don't know, I just kind of found it.

Brad: Just some kind of reptile or snake eye?

David: That looks cool! What kind of eye is that?

Henry: I don't know, I just kind of searched for dragon and this came up.

Brad: So was it already colorized in that way?

Henry: Yeah, I'm just trying to figure out what else I can do to it.

Hector: I just started using the last one we did, and changing the colors of that.

Brad: Oh, using the gradient map? Do you remember where that is?

Hector: Yeah, I think so.

Brad: Scroll down to the bottom of that menu. That's gradient fill, which does something different, but below that is gradient map, which is what I used on the Bill Murray picture.

Hector: Oh ok, I see it now.

Brad: So if you click this arrow, you can apply any of these presets, and if you click the gear icon it will drop down more options and you can make your own color gradients too. I think you'll find a lot of the ones that look best are where the darker color is on the left and lighter color is on the light. That way the highlights and shadows kind of stay looking right but the colors will be funky.

Session 7 Interview Transcripts – March 8, 2014

Time: 1305
Subject: Jessica's formal art education experiences

Jessica: So, my vase, it's now like a stone tower and like a castle as well. And its pretty awesome, it just needs to be glazed.

Brad: That sounds great, is it almost done?

Jessica: Well, its technically finished now, we were done this week. Samuel, who usually sits here, he made a squid on top of a rock out of clay.

Brad: That sounds pretty neat!

Jessica: Yeah!

Brad: Is this with Ms. Blaser? How many classes does she teach at your school?

Jessica: Um, Drawing and Painting 1, Drawing and Painting 2, Basic Design, um, Jewelry, Graphic Design, Crafts…

Brad: Wow, she must be busy. Is she the only art teacher at your school?

Jessica: Yeah, she's the only one.

Brad: Well, she's very talented, I'm sure you're learning a lot from her.

Jessica: Yeah, it's my favorite class.

Time: 1310
Subject: Eva wins best in show

Brad: How did the Insect Fear Festival go?

Eva: Uh, I won best in show!

Brad: That's great! Congratulations! Was there a prize for that?

Eva: You get a certificate. And you get a big pretty purple bow.

Brad: So mostly bragging rights, huh?

Eva: Yeah, pretty much.

Brad: Did you get to stay for any of the movies they were showing.

Eva: Actually, yeah, I stayed for one of the really old movies that they showed. The only problem was it was like 70 minutes long.

Brad: What was it about?

Eva: It was kind of like a Western, but it was in black and white and had really bad acting of course.

Brad: Were there insects in it?

Eva: No! Well, like, it barely even talked about the insects. There was one part where they were cutting down trees that the insects had infested, but that was it. But there was a murder that it was basically about. Me and my mom were like… [yawn] So we didn't stay for the second one, though. (personal communication, March 8, 2014)

Time: 1335
Subject: Jessica discusses "Murican" culture.

Jessica: See, I wish I was born anywhere but America. Because everyone else has these sort of weird, interesting cultures, and here everyone's just like "Murica!" It's just like, why?

Brad: Well, I hope you'll get a chance to travel someday. I do think there's interesting culture here to be found though.

Jessica: But I'm not interested in it.

Brad: OK. Maybe one of those "grass is always greener" things, you think?

Jessica: No.

Brad: [laugh] That's fair. But you're well-traveled, you've been to some interesting places. You've been to Hawaii, that's pretty different for part of America, right?

Jessica: The most entertaining thing was within the first 10 minutes of being in Hawaii and outside the airport, it was just hilarious because the GPS was having such a big problem with pronouncing road names. We took a 7-hour drive just to see the landscape. And we found this set of waterfalls on the side of the road and they were swimmable, so we spent like 4 hours in a waterfall. It was amazing.

Brad: That does sound amazing. I'm jealous!

Time: 1350
Subject: Henry discusses his painting experience

Brad: That looks great, Henry! It's starting to look really impressionistic.

Henry: Thanks, I'm trying to get the eyes, that's like the only problem.

Brad: Ok, so take the brush down in size. And what I might do is zoom in and, you know, work a little detail. Even smaller than that.

Henry: Really?

Brad: Yeah, that's about what I was thinking. Now you can even set the strength up a bit too.

Henry: So, would that make it, like, pull more.

Brad: Exactly, that will make it pull more of the color around, and give you some sharper and stronger lines in the eye areas. Typically that's where the focal point is in a portrait, so this technique helps draw attention there. I think you've got the right idea, just following the curves of the face, around the cheeks, just like that. Do you do a lot of painting?

Henry: Yeah, that's what I do most. A lot of times its landscapes with uh, acrylic paint.

Time: 1415
Subject: Discussing the Oculus Rift

Brad: Have you guys heard of this thing coming out, called the Oculus Rift? It's pretty awesome, I have to pull this up to show it to you. It's like a virtual reality headset.

Carson: Yeah, I've heard of it.

Brad: Well, it sounds really cool, you have to wear this goofy thing on your head, but its super high-def and 3-D, and tracks your head motions so if you turn your head, the 3D environment reacts with it. Let me see if I can find the rollercoaster thing I saw.

Brad: So essentially it has a screen for each eye with slightly different perspectives, which tricks your brain into thinking its really 3-D.

David: What is this?

Brad: It's called the Oculus Rift. I emailed the company yesterday and said our workshop would really love to get our hands on one.

Jessica: Whoah. Think of how many things you could do with this!

Brad: I know, I saw somebody had recreated Jerry's apartment from the TV show "Seinfeld" and you can just kind of walk around it and look around…

David: Who made this?

Brad: I don't really know, they just released the kit for developers, so I think random people are trying different things out for it.

Brad: I guess it kind of confuses your senses and equilibrium, it's so realistic. That's what people are saying at least. That you lose your balance a lot if you're standing and use it.

David: How do you get that?

Brad: I'm not sure, they're not really selling it yet unless you say you're a developer and want to develop something for the platform. I think it still costs like $300 even if you are.

David: So it's like a game that you put on your head.

Jessica: It's not really a game, but like a headset that you can then program games for or play them through, I think.

Brad: Yeah, that's right. So right now most people have just been building simple scenes and environments you could explore with it, but others have started importing other games for the platform. Like, I saw someone playing *Skyrim* on it…

Carson: That would be crazy!

Brad: Yeah, this guy was all decked out, he had, like, a treadmill thing hooked up so he could literally walk around in the Skyrim realm, and had a Wii controller for the bow and arrow, so he felt like he was really shooting arrows at the enemies.

Henry: Can we see that one? That sounds really cool.

Brad: Yeah, let me see if I can find it.

Jessica: Imagine what you could do… You could, like, make something that let you be Harry Potter.

Brad: Exactly! You could like walk around Hogwarts or play quidditch and feel like you were really there.

Jessica: Yes!

Brad: So, I've really got my fingers crossed that they'll respond and send us one of these and maybe we could eventually start developing. Definitely not in the next two weeks, but maybe sometime next year.

Eva: New workshop!

Brad: I like that idea, but no promises.

Session 8 Interview Transcripts – March 15, 2014

Time: 1315
Subject: Heather picks art show entries

Brad: Are these things you've done, Heather?

Heather: Yeah.

Brad: That's cool, what is the medium?

Heather: Um, Photoshop.

Brad: Photoshop? Like collage? Awesome. This one really caught my eye as I was walking over (gesturing to one of the images on screen).

Heather: Thank you, it's for an art show.

Brad: Oh, it is? Where is it?

Heather: Blaser does like an art show every year in Bloomington that she has us compete in.

Brad: Oh cool. Do you mind if I take a picture?

Heather: Sure. I have this one too.

Brad: Oh, there's another?

Heather: There's another!

Brad: Which is your favorite one?

Heather: That's what I'm trying to decide! I'm trying to choose two, but I have a lot. (personal communication, March 15, 2014)

Time: 1355
Subject: Eva livestreams with Elise

Eva: Hey, Brad. I'm watching my friend Elise's livestream right now.

Brad: Elise that was here a few weeks ago? What's she doing?

Eva: I'm thinking she's drawing something from *Animal Crossing*.

Brad: What is going on here?

Eva: Uh, it's a person and an antelope. That's why I think it's from *Animal Crossing*.

Brad: No, I mean, like, what am I watching? This is what is on her computer screen right now?

Eva: Yeah, she's livestreaming. She told me to show you.

Brad: Wow, that's awesome! Make sure you tell her I welcome her virtually to our workshop!

Eva: I will.

Brad: Are you livestreaming to her?

Eva: No, just watching for now.

Brad: Do you guys do this a lot?

Eva: Every now and then. She's a really great artist, so I like seeing how she works. It's really cool to see something develop from beginning to end.

Brad: I can imagine, that's a great way to learn. What is this platform called?

Eva: SAI, and she also likes to paint too and she's amazing! This is actually a commission she's doing for someone.

Brad: She's getting paid to do this? That's awesome.

Eva: Yeah, she also really likes to blog out all her things she's done and her commissions. She's really good.

Brad: So who is commissioning this artwork?

Eva: Um, someone I don't know.

Brad: Oh that's cool. So does she get commissions from people in real life, or people she's met online?

Eva: Probably online mostly.

Brad: And she uses a pen tablet I'm sure.

Eva: Uh huh. And hers is a lot better than mine. It's a Wacom and was like $175. The ones at school, Mr. S bought like a bunch of tablets and we never use them. They're a lot bigger than mine.

Brad: Really, and they're just sitting there gathering dust?

Eva: Yeah, that's pretty much all they're doing. I use them sometimes during lunch though.

Brad: He doesn't teach a digital arts class or anything?

Eva: He did once. He taught us once how to make a doughnut in Photoshop.

Brad: Oh, ok. Well that's better than what we had when I was there! There was nothing digital. Does he have computers up in the art room now?

Eva: Yep.

Brad: Oh wow, I'll have to go back and check out the room again sometime. I'm sure a lot has changed, I don't even know who Mr. Stripens is.

Eva: Oh really? He's a great guy, he's awkward and short.

Brad: Is that a fact? Art teachers have a tendency to be a little awkward usually I think.

Eva: He's my favorite teacher.

Time: 1420
Subject: Calvin experiments with video editing software

Brad: Is this working out so far?

Calvin: Well, I'm not using iMovie. I wanted to try out Premiere instead.

Brad: Oh, yeah, that's going to have a lot more sophisticated features for you to use once you figure out how the interface works.

Calvin: I'm playing with the crop thing, because there's a little bit there where it looks funny.

Brad: Yeah, it looks like there might have been a shadow cast towards the middle that is throwing off the seam between the frames. One thing you might do is see if you can find a way to soften the edge between the clips, and that way it might blend a little better.

Calvin: I think maybe it's this "edge feather" thing.

Brad: Yeah, I'd guess that's probably what you want. It doesn't look like its applying to the clip though.

Calvin: Yeah, I've been looking for how to do that. I think I'll probably Google it.

Brad: That's always a great idea. I don't know much about Premiere, personally, so I'm not sure I'll be much help.

Session 9 Interview Transcripts – March 22, 2014

Time: 1320
Subject: Demonstrating the anaglyph method

Brad: So, I have provided for us all these 3D glasses. So we can all look ridiculous together.

Henry: Ooh…

Hector: Oh yeah, I've seen these before.

Brad: Right, so these are 3D glasses, but not really like the ones you use at the movies today. These are called anaglyph glasses, and they were used way back in the day to trick the eyes into seeing a 3D effect in movies, comics, or other stuff. So go ahead and put these on and take a look at this image I've got up here.

Charlie: I only have one contact in today.

Brad: Ok, I guess you're kind of going to be out of luck. It should still work, if you get really close to the screen. So anyway, I just made this image saying "digARTS" in photoshop, and as you can hopefully see, the letters all kind of look like they're floating at different distances from you.

Henry: Oh yeah… whoah.

Brad: So I did this in part by scaling, you know, making the "i" a bit smaller than the others because it's farther away. But also by the anaglyph method, which I'm going to show you in Photoshop. It's actually pretty easy once you get the hang of it, but it involves a little bit of math and counting.

Time: 1350
Subject: Charlie mods *Minecraft* in anaglyph

Brad: Whoa, what's going on here?

Charlie: I found an anaglyph mod for it.

Brad: Oh, so you can like import…

Charlie: Yeah, there's a few options. I picked "red/cyan", but there are other color options. There's stereoscopic too.

Brad: So does it work?

Charlie: It works okay, you can definitely tell there's some depth. It kind of gives me a headache though.

Brad: Yeah, it's weird, I wonder how badly it messes with your brain.

Charlie: I know. I was playing a game before I was coming here. And I was like walking around a corner in the game as I was walking out of my room to get my shoes on to come here. And then there was a guy there [in the game], and I was like "oh crap!" and moved behind the door. But then I actually moved back too, and it's like, what happened?

Brad: Oh, so you had like a sensory mix-up from gaming and walking?

Charlie: Yeah, and I was like, if this is happening on my handheld, I can't imagine what would happen if I played with an Oculus Rift! I still want to play "Skyrim" on it though.

Brad: I think it would be fun to try. I'm not sure I'd want a game to be so immersive all the time.

Charlie: Yeah, that's like when the Kinect came out, which was cool for a little while and then I stopped wanting to have to move around all the time. (personal communication, March 22, 2014)

Time: 1400
Subject: Assisting Henry with the anaglyph process

Brad: How are you guys doing?

Henry: Question about this, what do you move first?

Brad: You know, you could do either first, it doesn't really matter. But red goes right is the rule to make something pop out.

Henry: Ok.

Brad: So what we'll do, we want to make sure we get rid of the glimmering selection. I think we're good. And red to the right, and you can see how that red edge is showing up. Did you count how many clicks you went?

Henry: Yeah, I went 8.

Brad: Ok, then you want to take the blue layer 8 to the left. I found if you put the glasses on as you're doing the adjusting, then you can really see the difference it makes more easily. So is that working?

Henry: It looks… closer.

Brad: Yeah, I can tell, too. Maybe a few clicks inward, 8 steps might make the effect a little blurry if the layers are too separated.

Henry: Oh yeah, that helped a lot.

Time: 1435
Subject: David discusses racing games

David: This is, uh, *Ridge Racer Unbounded*.

Brad: How many racing games would you say you have?

David: Do I have?

Brad: Yeah.

David: Oh, I have like 13.

Brad: And they're all good for different reasons I guess?

David: Yes, I have this one too at home. I'm like level 24 of 30.

Brad: What's good about this one that the other games don't have?

David: Well, this one, you can smash through anything like buildings and scenery.

Brad: Oh, they had a game like that when I was a kid called *Twisted Metal*.

Calvin: I played that one before, it's pretty fun.

Brad: Do you spend a lot of time at home racing?

David: A lot.

Brad: Do you know how much? Like an estimate?

David: Um… A lot. [laugh] I don't get to play much during the week though.

Brad: So, do you think you'll be driving some day?

David: Oh, yes. I have 2 years to wait though.

Brad: Is this practice then?

David: I don't know. Not really, I like to be able to crash into stuff.

Brad: Good to get it out of your system!

David: Yep.

Brad: What else is exciting about playing racing games?

David: Well, I'll probably never get to drive a Ferrari like this in real life.

Brad: Not if you treat it like that!

David: Oh, I wouldn't.